



Department of Energy

Richland Operations Office
P.O. Box 550
Richland, Washington 99352



SEP 1 1994

Dear Interested Party:

This letter is in reference to the U.S. Department of Energy, Richland Operations Office (RL) Activity Data Sheets (ADS). The enclosed ADS and Task Description Documents reflect RL's Fiscal Year (FY) 1996 through 2000 budget submission. These ADSs were submitted to DOE Headquarters on May 5, 1994. That submission began DOE's Internal Review Budget process.

Subsequent to our submission, there have been considerable changes to programs and budgets. These and other changes that will occur as the budget development process continues, will be reflected in the President's FY 1996 budget submission to Congress. Thus, these ADSs must be treated as early drafts of the actual budget.

There are other considerations that should be borne in mind while these ADSs are reviewed:

1. The target case shown in these ADSs represented our attempt at revising the FY 1995 distribution of funds. Subsequent events have required us to return to the distribution of funds included in the President's FY 1995 budget.
2. The "planning case" represents our request for funding to fulfill all regulatory requirements, wise enhancements and upgrades.
3. These ADSs do reflect:
 - a. workscope of \$149M in FY 1995 and \$151M in FY 1996 which is to be achieved through productivity savings;
 - b. aggressive use of innovative contracting strategies, such as privatization of the Steam Plant, WRAP IIA and interim storage for spent fuel; and
 - c. an assumption of successful Environmental Restoration (ER) refocusing. This includes an assumption of successful ER refocusing and changes to TPA Milestones M-13, M-15, M-16, and M-20.
4. These ADSs do not reflect:
 - a. RL's expected share of DOE's reduction of uncostered obligations (\$240M);

Interested Party

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b. RL's expected share of DOE's productivity commitments (\$300M); and

c. congressional reductions to FY 1995 budget request.

It is our hope that these ADSs will provide you with a better understanding of the early stages of our budget development process.

Sincerely,


John D. Wagoner
Manager

BUD:JMP

Enclosures:

1. Activity Data Sheets
2. Task Description Documents

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OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 103 ADS SUF: 0 SUBACTIVITY: AA

SUBACTIVITY TITLE: General Support Service Contractor (GSSC) Support to WM

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: D VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: PROGRAM CONTROL/SUPPORT

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3110010	TOTAL
	7090
TOTAL	7090
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3110010	6991	12481	7090		7090	7602	6846	5855	5371
TOTAL	6991	12481	7090	0	7090	7602	6846	5855	5371
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3110010	6991	12481	7090		7090	7602	6846	5855	5371
TOTAL	6991	12481	7090	0	7090	7602	6846	5855	5371
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This workscope consists of the general support service contractor (GSSC) support to DOE-RL employees directly related to Waste Management (EM-30) activities at the site that are necessary to perform additional analysis, review and oversight of DOE-RL's contractors (i.e. WHC/PNL).

RELATED ACTIVITIES NARRATIVE:

This task is directed related to subtask AA of ADS 6603 which provides support service contract support for direct EM-60 activities as well as support for the DOE-RL matrix organizations and ADS 3400 which provides support service contractor support for activities directly related to Environmental Restoration (EM-40).

KEY ASSUMPTIONS:

The major assumption in this subactivity is that the current level of Federal FTEs available to DOE-RL will increase in order to perform required oversight activities at DOE-RL. As a result, the level of GSSC support will decrease from FY 1996-2000. The GSSC levels budgeted for were based on a survey of all DOE-RL organizations conducted by the Human Resources Division (HRD) which identified current FY 1994 levels of support from various support contractors as well as projected support needed by the organizations for the outyears. Per an RL Senior Management decision, the decrement, target case, and planning case all assume the same GSSC FTE levels.

ACTIVITY BY PRIORITY:

This activity is classified as a Priority 2A. GSSC support to the WM programs is necessary to meet the terms of agreements between DOE and Tribal governments and local, State and Federal Agencies. These agreements represent legal or procedural commitments to complete activities on the schedules agreed to by DOE.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

General support service contractor support is being provided on an on-going basis. Through FY 1994, ADS 103 has supported Waste Management Direct GSSC support to perform such tasks as the Tank Waste Remediation Environmental Impact Statement, document reviews, systems development and systems engineering.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Currently, ADS 103 is providing GSSC support to direct WM DOE-RL organizations to perform such tasks as those identified above. Other activities include K Basin Encapsulation support, and Analytical Services support.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

In FY 1995, ADS 103 will continue to provide GSSC support for direct WM DOE-RL organizations. The FTE level is held constant from FY 1994 and was based on the FTE level indicated in an Human Resources Division study in which the organizations identified current GSSC support. Actual FTE levels will vary based on the mix of contractor support utilized and the rate per FTE. FTEs will provide support in complying with DOE Orders, the Tri-Party Agreement, legal requirements, and Federal and State Regulations.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

In FY 1996, ADS 103 will continue to provide GSSC support for direct WM DOE-RL organizations. Per an RL Senior Management decision, the FTE levels supported in the decrement, target and planning case are the same. The FTE levels were based on the levels indicated in a Human Resources Division study in which the organizations identified future GSSC support needed. Beginning in FY 1996 through FY 2000, the GSSC FTE level steadily decreases in relation to the increase in Federal FTEs. The actual number of FTEs supported will vary based on the mix of contractor support utilized and the rate per FTE.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

ADS 103 will continue to provide GSSC support for direct WM DOE-RL organizations. The tasks will be similar to those described above. The FTE levels will steadily decrease based on the FTE levels indicated in a DOE-RL

Human Resources Division study in which the organizations identified future GSSC support. The actual number of FTEs supported will vary based on the mix of contractor support utilized and the rate per FTE.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The requested level of direct WM GSSC support focuses on ensuring compliance with:

- DOE Orders
- Secretarial Initiatives
- RCRA/CERCLA
- Hanford Facility Agreement and Consent Order(Tri-Party Agreement)

REGULATORY KEY ISSUES:

The impact of not maintaining the current level of direct WM GSSC support would be a reduction in DOE-RL's ability to provide management and oversight of its programs, as well as reduced ability to respond to HQ and public requests and might result in lack of compliance with DOE Orders or other regulatory drivers.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The planning level of direct WM GSSC support is the same as the decrement and target levels per an RL Senior Management decision, and consistent with DOE-RL's Federal FTE Bid Package submitted to EM on April 1, 1994. In the HRD study, the organizations indicated the FTE levels they felt were necessary to comply with anticipated legal, DOE and regulatory compliance requirements for FY 1996-FY 2000. The estimate of GSSC support needed drops in FY 1996 due to the completion of a Tank Farms Remediation System (TWRS) Environmental Impact Statement (EIS), and due to an anticipated increase in Federal FTEs.

CONCERNS AT PLANNING LEVEL:

Full support of the GSSC FTE requirements identified by the organizations may not provide enough support if additional DOE, legal or regulatory requirements are identified through renegotiations of agreements or if federal FTE levels fall below currently planned levels for those years.

REQUIRED TECHNICAL DEVELOPMENT:

N/A

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 103 ADS SUF: 0 SUBACTIVITY: BB

SUBACTIVITY TITLE: General Support to On-going Waste Management Operations

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: D VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: PROGRAM CONTROL/SUPPORT

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3110010		TOTAL
TOTAL		535
DIRECT FTE		535
		0

TARGET CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3110010		0		520	535		535	551	568	585
TOTAL		0		520	535	0	535	551	568	602
DIRECT FTE		0		0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3110010		0		520	535		535	551	568	585
TOTAL		0		520	535	0	535	551	568	602
DIRECT FTE		0		0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This workscope consists of unplanned actions at DOE-RL which were not identified in programmatic ADSs that arise throughout the fiscal year and are necessary to maintain current operations. An example of these unanticipated requirements would be any fees assessed against WM programs which are not currently budgeted for in programmatic ADSs.

RELATED ACTIVITIES NARRATIVE:

ADS 103 was split in FY 1994. Site-wide activities of a general support nature (such as air emissions monitoring fees) can now be found in ADS 6603, subactivity BB.

KEY ASSUMPTIONS:

Total funding for this type of workscope for FY 1995 and the outyears was based on the original FY 1994 level which was included in ADS 103 and increased by escalation only. However, in FY 1994, all funding for this workscope was shifted to EM-60. In FY 1995, it was determined that a portion of that workscope is directly related to WM and therefore belongs in the WM budget in order to comply with Congressional Control Points. Therefore, approximately one fourth of the target level funding to respond to these unanticipated needs was redistributed to ADS 103.

ACTIVITY BY PRIORITY:

This activity is considered to be Priority 2A. Any activities funded in this task would be necessary to comply with DOE Orders, the Tri-Party Agreement, legal requirements, and State and Federal Agency requirements.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

No tasks are completed to date as all of the funding related to this activity was moved to EM-60 in FY 1994.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

No tasks are completed to date as all of the funding related to this activity was moved to EM-60 in FY 1994.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

In FY 1995, funding has been identified to support on-going activities required to directly support DOE-RL WM organizations. This would include any fees or funding requirements that arise during the year that are not currently budgeted for in programmatic ADSs. Examples of tasks funded by this TDD would include responding to Defense Nuclear Facilities Safety Board (DFNSB) action plans or other unplanned safety issues; unplanned fees assessed against Waste Management; or other items that come up such as funding for the EM standdown action plans.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Workscope for the outyears is consistent with that covered in FY 1995. This workscope has received a funding increase of escalation only to support on-going activities required to directly support DOE-RL WM organizations. The level for this activity is the same in the decrement, target and planning case. This would include any fees or funding requirements that arise during the year that are not currently budgeted for in programmatic ADSs.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Workscope for the outyears is consistent with that covered in FY 1995. This workscope has received a funding increase of escalation only to support on-going activities required to directly support DOE-RL WM organizations. This would include any fees or funding requirements that arise during the year that are not currently budgeted for in programmatic ADSs.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Regulatory drivers would vary depending on the unplanned requirement that arises. In general, they would consist of State and Federal Regulations, compliance with DOE Orders, and compliance with the Tri-Party Agreement.

REGULATORY KEY ISSUES:

Failure to provide general program support for direct WM activities would result in numerous change control activities for the WM program to respond to unanticipated requirements throughout the year. Without this funding, the need to fund these activities might result in significant impacts to programmatic Fiscal Year Work Plans which could cause schedule slippage of currently planned programmatic workscope and milestones.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The planning level is the same as the target and decrement level. This activity has been deemed necessary by RL Management to be able to respond to unplanned activities which have a significant impact on the on-going operations of the Waste Management Program. Examples of these type of activities include responding to the Defense Nuclear Facility Safety Board (DFNSB) or any unplanned safety issues that arise throughout the fiscal year.

CONCERNS AT PLANNING LEVEL:

This task would be unable to absorb new funding requirements of a significant nature which may arise during the year that are determined by RL Senior Management to be partially paid for by Waste Management (potential activities such as the declassification initiative).

REQUIRED TECHNICAL DEVELOPMENT:

N/A

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INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 199 ADS SUF: 18 SUBACTIVITY: BB

SUBACTIVITY TITLE: PROGRAM DIRECTION - ENVIRONMENTAL RESTORATION

INSTALLATION: HANFORD

CATEGORY: ER DEFENSE/NON-DEFENSE: D VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: PROGRAM DIRECTION

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW2060000	TOTAL
	4428
TOTAL	4428
DIRECT FTE	40

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW2060000	2177	4496			4428	4428	4654	5077	5290
TOTAL	2177	4496	0		4428	4428	4654	5077	5290
DIRECT FTE	22	34	0		40	40	41	43	44

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW2060000	2177	4496			4428	4428	4654	5077	5290
TOTAL	2177	4496	0		4428	4428	4654	5077	5290
DIRECT FTE	22	34	0		40	40	41	43	44

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1100 ADS SUF: 0 SUBACTIVITY: AA

SUBACTIVITY TITLE: TANK FARM OP AND MGMT

INSTALLATION: HANFORD

CATEGORY: WM

DEFENSE/NON-DEFENSE:

VERSION DATE: 5/12/93

PROGRAM: EM

PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO:

TPC:

TEC:

DESCRIPTION: TANK FARM OPERATIONS AND MANAGEMENT

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3120071		TOTAL
CE 35EW31207		165818
TOTAL		2582
DIRECT FTE		168400
		0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3120071	156525	155120		165818	165818	176464	185130	189664	187676
CE 35EW31207	5545	2680		2582	2582	2513	2458	2451	2460
TOTAL	162070	157800	0	168400	168400	178977	187588	192115	190136
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3120071	156525	155120		165818	165818	176464	185130	189664	187676
CE 35EW31207	5545	2680		2582	2582	2513	2458	2451	2460
TOTAL	162070	157800	0	168400	168400	178977	187588	192115	190136
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TANK FARMS BUDGET

TANK FARMS BUDGET

TANK FARMS BUDGET

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

E-T010

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1100 ADS SUF: 0 SUBACTIVITY: AB

SUBACTIVITY TITLE: PRODUCTIVITY CHALLENGE/RATE CHANGES

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: TANK FARM OPERATIONS AND MANAGEMENT

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE	EW3120071	TOTAL
CE	35EW31207	-24130
		-1
TOTAL		-24131
DIRECT FTE		0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE	EW3120071	-17953	-20197	-24130	-24130	-14898	14429	-17145	-30020
CE	35EW31207	0	46	-1	-1	178	641	157	-43
TOTAL		-17953	-20151	0	-24131	-24131	-14720	15070	-16988
DIRECT FTE		0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE	EW3120071	-17953	-20197	-24130	-24130	-14898	14429	-17145	-30020
CE	35EW31207	0	46	-1	-1	178	641	157	-43
TOTAL		-17953	-20151	0	-24131	-24131	-14720	15070	-16988
DIRECT FTE		0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

PRODUCTIVITY CHALLENGE/RATE CHANGES
PRODUCTIVITY CHALLENGE/RATE CHANGES

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1110 ADS SUF: 0 SUBACTIVITY: AA

SUBACTIVITY TITLE: WASTE TANK SAFETY PROGRAM MANAGEMENT & QUALITY ASSURANCE

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: WASTE TANK SAFETY PROGRAM

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3120072		TOTAL
CE 35EW31207		60434
TOTAL		26894
DIRECT FTE		87328
		0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3120072	40551	59976			60434	60434	65703	50533	44972
CE 35EW31207	20500	22413			26894	26894	30491	22893	21476
TOTAL	61051	82389	0	0	87328	87328	96194	73426	66448
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3120072	40551	59976			60434	60434	65703	50533	44972
CE 35EW31207	20500	22413			26894	26894	30491	22893	21476
TOTAL	61051	82389	0	0	87328	87328	96194	73426	66448
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

Program Management and Quality Assurance provides for the overall program management of the Waste Tank Safety Programs (WTSP) including issues management, external interface, and quality assurance. This activity provides the management, planning and oversight for the other sub-activities in this program.

This sub-activity is ongoing and will continue until selected outstanding high priority waste tank safety issues are resolved.

RELATED ACTIVITIES NARRATIVE:

This subactivity is a part of ADS 1110 - Waste Tank Safety Programs which were established in mid-1990 to address the hazards associated with storage of radioactive mixed waste in the large underground radioactive waste storage tanks at the Hanford Site. This ADS will serve as the focal point of identification and resolution of selected high priority waste tank safety issues. This ADS consists of eleven subactivities to achieve near term and long-range goals. These subactivities are (1) Waste Tank Safety Program Management & QA, (2) Hydrogen Mitigation, (3) Waste Tank Ferrocyanide Safety Program (4) Waste Tank Flammable Gas Safety Program, (5) Waste Tank Organic Safety Program, (6) Waste Tank High-Heat Safety Program, (7) Waste Tank Structural Integration (8) Waste Tank Vapor Resolution, (9) Waste Tank Nuclear Criticality, (10) Other Waste Tank Safety Issues (inactive), and (11) Waste Tank Hydroxide Control.

Also provided is integration of workscope with the following ADSs:

1100 - Tank Farm Operations and Maintenance

1120 - Tank Farm Upgrades

1130 - Waste Characterization

KEY ASSUMPTIONS:

The funding of the activities described in this TDD will be funded by ADS 1200 beginning in FY 1995 with the exception of the quality assurance activities.

The technical assumptions are listed under other sub-activities.

ACTIVITY BY PRIORITY:

The workscope described in this TDD has been assigned a Priority 1 using the DOE-HQ four category system.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

PROGRAM MGMT AND QA SUPPORT
PROGRAM MGMT AND QA SUPPORT
PROGRAM MGMT AND QA SUPPORT

TASKS COMPLETED TO DATE:

As the planning function for the Waste Tank Safety Programs, this sub-activity has been responsible for completing and issuing the following documents:

- (1) 'Waste Tank Safety Programs Overview Plan,' WHC-EP-0426 Rev 3.
- (2) 'Fiscal Year 1992 Program Plan for Evaluation of Ferrocyanide in the Hanford Site Waste Tanks,' WHC-EP-0399, Rev 2.
- (3) 'Implementation Plan for the Defense Nuclear Facilities Safety Board Recommendation 90-7,' WHC-EP-0415, Rev 1.
- (4) 'Fiscal Year 1992 Program Plan for Evaluation and Remediation of the Generation and Release of Flammable Gases in Hanford Site Waste Tanks,' WHC-EP-0537 Rev. 1.
- (5) 'Program Plan for Evaluation and Resolution of the Organic Safety Issues in Handford Site Waste Tanks,' WHC-EP-0502, predecisional.
- (6) 'High-Heat Tank Safety Issue Resolution Program Plan,' WHC-EP-0532.
- (7) 'Waste Tank Structural Evaluation Program,' WHC-EP-0403A Rev 0.
- (8) 'A Plan to Implement Remediation of Waste Tank Safety Issues at the Hanford Site,' WHC-EP-0422 Rev. 1.
- (9) 'Program Plan for the Resolution of Tank Vapor Issues,' WHC-EP-0562.
- (10) 'Status Report on Resolution of Waste Tank Safety Issues at the Hanford Site,' WHC-EP-0600, predecisional.
- (11) 'Waste Tank Safety and Operations Program Applied Technology Plan,' WHC-EP-0624, draft.
- (12) 'Tank 101-SY Flammable Gas Mitigation Test Project Plan,' WHC-EP-0550.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Additional annual milestones (repeated for all years):

4/30 Provide Input to TWRS Multi-Year Program Plan

5/31 Provide Input to Five-Year Plan

9/30 Provide Input to TWRS Fiscal Year Work Plan

Program Management includes strategic planning, such as developing budget cases and preparing plans and schedules; developing cost, scheduling and technical baselines; workscope direction; cost and schedule control; monthly performance reporting; and program briefings and presentation. Planning and integrating capital and expense upgrades to promote tank safety is also included. In addition, technical oversight for the Waste Tank Safety Programs is provided by the Waste Management External Advisory Committee, the Waste Tank Science Panel and the Senior Chemists panel. Specific workscope includes the preparation of the WTSP input for the Fiscal Year Work Plan, the Multi-Year Program Plan and the Five-Year Plan; and preparation and updates to the sub-activity program plans as requested.

Issues Management includes identification, analysis and planning, statusing and closing issues, usually technical in nature, related to waste tank safety. These issues come from diverse groups of concerned program participants such as technical oversight groups, regulators, management and employees.

External Interface includes management and coordination of the review and response to external comments and requests. External organizations consist of WHC non-TWRS organization, other on-site contractors, DOE-RL, off-site contractors, the state, tribal agencies, DOE-HQ and the public. This organization was formed in response to a recommendation made by the Ruppel Committee and is intended to consolidate the collection and dissemination of information to external organizations.

Quality Assurance, Quality Engineering and Quality Control support all Waste Tank Safety Programs activities and milestones. Scope includes quality document reviews and readiness reviews to verify that drawings, specs and procedures are met; inspections of instrumentation upgrades to the Watch List tanks; procurement support of off-site material, equipment and services; support for engineering development related to Watch List tanks; and fab shop support.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

The workscope is the same as for FY 1993 with the addition of support for Programmatic Risk Assessment as requested by DOE-RL.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

The workscope is the same as for the Budget Year, FY 1994.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

The outyear workscope is the same as for FY-95.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Waste tank safety is a top safety concern in the DOE complex and the legal requirements fall into five categories: (1) DOE Orders and Atomic Energy Act; (2) Other Federal Requirements; (3) National Environmental Policy Act; (4) DOE/EPA/State Agreements (Tri-Party Agreement); and (5) State/Local Laws. The specific legal requirements for each of the WTSP sub-activities are listed in their respective Task Description Document. This sub-activity is required to plan, manage and control the other sub-activities, and as such has the same legal requirements.

REGULATORY KEY ISSUES:

None

COMP/PROG BENEFITS AT PLANNING LEVEL:

None

CONCERNS AT PLANNING LEVEL:

None

REQUIRED TECHNICAL DEVELOPMENT:

None

E-T010

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1110 ADS SUF: 0 SUBACTIVITY: AM

SUBACTIVITY TITLE: PRODUCTIVITY CHALLENGE

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: WASTE TANK SAFETY PROGRAM

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE	EW3120072	TOTAL
CE	35EW31207	-8794
		-16
	TOTAL	-8810
	DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL BUD	LEGAL	ESH	TOTAL				
OE	EW3120072	-6684	-7809		-8794	-8794	-5547	3939	-4065	-5691
CE	35EW31207	0	389		-16	-16	2161	5970	1372	-185
	TOTAL	-6684	-7420	0	-8810	-8810	-3386	9909	-2693	-5876
	DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL BUD	LEGAL	ESH	TOTAL				
OE	EW3120072	-6684	-7809		-8794	-8794	-5547	3939	-4065	-5691
CE	35EW31207	0	389		-16	-16	2161	5970	1372	-185
	TOTAL	-6684	-7420	0	-8810	-8810	-3386	9909	-2693	-5876
	DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

PRODUCTIVITY CHALLENGE

PRODUCTIVITY CHALLENGE

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1120 ADS SUF: 0 SUBACTIVITY: OA

SUBACTIVITY TITLE: TANK FARMS MAJOR MAINTENANCE UPGRADES

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3130010		TOTAL
CE 35EW31301		11771
TOTAL		2726
DIRECT FTE		14497
		0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130010	28880	20300			16500	16500	14873	12899	13646
CE 35EW31301	5155	6300			3600	3600	5701	5213	4729
TOTAL	34035	26600	0	20100	20100	20574	18112	18375	12692
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130010	28880	20300			16500	16500	14873	12899	13646
CE 35EW31301	5155	6300			3600	3600	5701	5213	4729
TOTAL	34035	26600	0	20100	20100	20574	18112	18375	12692
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

In FY 1991 Westinghouse Hanford Company (WHC), with DOE concurrence initiated a major upgrade program for the Hanford Tank Farm Facilities. The scope of this activity includes Major Maintenance Upgrades, which are based on current requirements from U. S. Department of Energy Orders, Washington State regulations, and Code of Federal Regulations requirements. In addition, upgrade requirements have been identified in findings and observations from recent audits and surveillances of Tank Farm Facilities and Operations, as well as self-assessment of Tank Farm Upgrades necessary to accomplish the Tank Farm mission.

The major upgrades funded within this activity are:

- (1) Asbestos removal and control
- (2) Instrumentation and electrical upgrades
- (3) Compressor and generator upgrades
- (4) Contaminated equipment removal and facility decontamination (5) Facility and housekeeping upgrades such as painting and remodeling

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

Tank Farm facilities will be maintained in a safe and environmentally clean condition in accordance with current standards and specifications. Facilities will be provided for all aspects of Tank Farm management with particular emphasis on safe storage of high-level, TRU liquid, and other tank wastes. As a minimum, facilities upgrades shall consist of an upgraded safety analysis report, a clear and succinct well defined design basis, which will be sustained by a configuration control system.

Facilities upgrade projects will be quickly identified, defined and implemented in all areas which include, but are not limited to, Engineering, Production Control, Operations, Maintenance and Facilities to modern building codes and standards, in support of newly identified facilities within Tank Farm regulatory requirements. One unique exception should be noted with regards to emergency diesel generator systems upgrades. The response time between primary diesel shutdown and emergency diesel activation will not be instantaneous, but will be within a well planned time tolerance. The foremost requirements are human factor upgrades and new Operations support facilities in support of farm specific teams.

Contamination will be eliminated from within the Tank Farm compound and its surrounding area. Maintenance work backlog will be reduced through the careful review of work requests and the development of specific work packages. Additional resources will be required to support this effort and to prevent another backlog from developing. Old equipment and/or systems will be retired and replaced with new equipment and/or systems.

DOE Tiger Team fact findings will be satisfied. Projects and maintenance efforts will be planned in support of all Tiger Team Finding and Response Actions Plans (FRPA).

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

MAJOR MAINTENENACE CENTRC
MAJOR MAINTENENACE CENTRC
MAJOR MAINTENENACE CENTRC

TASKS COMPLETED TO DATE:

Major Maintenance - Initiated fabrication of an emergency pumping trailer, installed change trailers in the Tank Farms, procured and installed portal monitors.

Major Maintenance activities will be completed by year 2000.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
1120-00-0025	COMPLETE COMPRESSOR UPGRADES 241-U TANK FARM	9/30/93	5/27/94
1120-00-0005	MOTOR CONTROL CENTER FOR CR CONTROL ROOM - RESTORED	9/20/93	7/29/94
1120-00-0015	FIVE COMPRESSORS INSTALLED	8/26/94	8/26/94

CURRENT YEAR (FY 1994) TASK NARRATIVE:

Major Maintenance: Complete safety related compressor, generator, and alarm upgrades for the remaining A Tank Farm Complex facilities.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
1120-00-0020	S EVAPORATOR ALARM UPGRADES COMPLETED	4/25/95	4/25/95

BUDGET YEAR (FY 1995) TASK NARRATIVE:

Major Maintenance: Control rooms, compressors, and generators upgrades will be complete at 241-B Tank Farm and similar upgrades will be initiated at 241-C Tank Farm. Contaminated unused equipment will be removed from 241-B Tank Farm.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

All major maintenance upgrades will be completed in 241-C, S, T and U Tank Farms.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

National Environmental Policy Act (NEPA)
Code of Federal Regulations 40 CFR 1500
Washington State Environmental Policy Act
Washington Administrative Code (WAC) WAC 1987
Resource Conservation and Recovery Act of 1976
Clean Air Act 40 CFR 61, 40 CFR 52
Tiger Team Assessment Findings
Technical Safety Appraisal Concerns
DOE Order 5400.1, General Environmental Protection Program DOE Order
5400.3, Hazardous and Radioactive Mixed Waste Program DOE Order 5400.5,
Radiation Protection of the Public and the Environment DOE-RL 5480.1,
Environmental Protection, Safety, and Health Program for Department of
Energy Operations
DOE Order 5480.5, Safety and Nuclear Facilities
• DOE Order 5481.1B, Safety Analysis and Review System DOE Order 5820.2A,
Radioactive Waste Management
DOE Order 6430.1A, General Design Criteria

REGULATORY KEY ISSUES:

The Tank Farm Major Maintenance Upgrades program has been prioritized to provide emphasis and support to DOE-HQ/RL concerns for the health, safety, and environmental protection of all Hanford Tank Farm employees. Particular attention was devoted to human factors, such as nutrition areas, rest rooms and change rooms. Environmental concerns are also addressed with the addition and/or replacement of exhausters, vent systems, recorders, monitors, etc. Should these activities not be funded, the results would be sub standard working conditions for Tank Farm employees.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The target level funding delayed completion of asbestos removal/replacement activities which are required by DOE Order 5400.3 & 4 by 5 years. Painting restoration activities as outlined by INPO Good Practices and OSHA guidelines will be postponed 2 years.

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

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INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1120 ADS SUF: 0 SUBACTIVITY: OB

SUBACTIVITY TITLE: TANK FARM UPGRADE PROJECTS - OPERATING

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
GP 39EW31301	TOTAL
	1706
TOTAL	1706
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
GP 39EW31301	2000	5596				6527	6822	6822	6822
TOTAL	2000	5596	0	0	0	6527	6822	6822	6822
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
GP 39EW31301	2000	5596				6527	6822	6822	6822
TOTAL	2000	5596	0	0	0	6527	6822	6822	6822
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

Tank Farm Project Upgrades consisting of operations facilities, operations support facilities and equipment are required to facilitate operations of the tank farms through to completion of the waste storage mission at Hanford. Operations facilities which provide permanent change room capabilities, lunch room/meeting room space, waste tank status data and alarm displays, health physics support, and supervisor office space are required at several Tank Farm complexes. Operational support facilities which provide office space for management, engineering, safety, environmental, and QA support staff are required at central locations in the 200 East and 200 West areas. Major upgrades of Hanford Tank Farm facilities are required to support the waste storage mission through to disposal of the DST waste and closure of the SSTs. These upgrades are included in the following categories: Waste transfer systems, HVAC systems, instrumentation and control systems, and electrical distribution systems. The workscope includes engineering studies, development of project design criteria, conceptual design, project validation, definitive design, procurement, construction, permitting, safety documentation, NEPA documentation, operations support and system startup, project management, and miscellaneous support by non-dedicated staff for reviews and studies.

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

Tank Farm facilities will be maintained in a safe and environmentally clean condition in accordance with current standards and specifications. Facilities will be provided for all aspects of Tank Farm management with particular emphasis on safe storage of high-level, TRU liquid, and other tank wastes. As a minimum, facilities upgrades shall consist of an upgraded safety analysis report, a clear and succinct well defined design basis, which will be sustained by a configuration control system.

Facility upgrade projects will be quickly identified, defined and implemented in all areas which include, but are not limited to, Engineering, Production Control, Operations, Maintenance and Facilities Management. Specifically, facilities and utility systems will be upgraded to modern building codes and standards, in support of newly identified facilities within Tank Farms regulatory requirements. One unique exception should be noted with regards to emergency diesel generator systems upgrades. The response time between primary diesel shutdown and emergency diesel activation will not be instantaneous, but will be within a well planned time tolerance.

DOE Tiger Team Fact Findings will be satisfied. Projects and maintenance efforts will be planned in support of all Tiger team Finding and Response Actions Plans (FRPA).

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Tank Farm Upgrade Projects - completed conceptual design and initiated definitive design on Project W-116, 'Operations Support Facility', completed FDC for Project W-182, '272-AW Building Addition, completed CDR and initiated definitive design for Project W-172, '272-AW Septic Upgrade'.

Tank Farm Project Support is an ongoing activity at this time. Project W-116, 'Support Facility' construction will be completed. Project W-115, 'Support Facility' construction will be initiated. Construction for the 272-AW Building Addition will be completed as well as the 272-AW Septic System.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Projects: Complete construction for Project W-115, 'Operations Support Facility', Project W-172, '272-AW Septic Upgrades', Project W-182, '272-AW Building Addition'. Complete FDC for Project W-203, 'Tank Farm Electrical Upgrade', and for Project W-061, 'Double-Shell Tank Ventilation Upgrades'. Complete CDR for Project W-201, 'West Area Transfer System Upgrade'.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

The CDRs for Project W-203, 'Tank Farm Electrical Upgrades', Project W-225, '200 East Operational Support Facility', and Project W-061, 'DST Ventilation Upgrades', will be completed. Three unidentified general plant projects will also be initiated. The FDC for Projects W-200, 'West Tank Farm Instrumentation Upgrades' will be completed.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Complete construction on the following projects: W-225, '200 East Office Building', W-061, 'DST Ventilation Upgrades', W-199, '200 East Area Tank Farm Instrumentation System Upgrades', W-200, '200 West Area Tank Farm Instrumentation Upgrades', W-201, 'East/West Area Transfer System Upgrades', W-203, 'Tank Farms Electrical Upgrades.'

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

National Environmental Policy Act (NEPA)
Code of Federal Regulations 40-CFR-1500
Washington State Environmental Policy Act
Washington Administrative Code (WAC) - WAC - 1987 Resource Conservation and Recovery Act of 1976
Clean Air Act 40=CFR-61, 40-CFR-52
Tiger Team Assessment Findings
Technical Safety Appraisal Concerns
DOE Order 5400.1, General Environmental Protection program DOE Order 5400.3, Hazardous and Radioactive Mixed waste Program DOE Order 5400.5, Radiation Protection of the Public and the Environment DOE Order 5480.1, Environmental Protection, Safety, and Health Program for Department of Energy Operations DOE Order 5480.5, Safety of Nuclear Facilities
DOE Order 5481.1B, Safety Analysis and Review System DOE Order 6430.1A, General Design Criteria

REGULATORY KEY ISSUES:

The Tank Farm Projects have been prioritized to provide emphasis and support to DOE-HQ/RL concerns for the health, safety, and environmental protection of all Hanford Tank Farm employees. Should these activities not be funded, the results would be sub standard working conditions for Tank Farm employees.

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

The following project completion dates will be delayed: W-225 (six years), W-061 (two years), W-199 (six years), W-200 (six years), and W-203 (five years) if funding is received at the target level.

REQUIRED TECHNICAL DEVELOPMENT:

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INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1120 ADS SUF: 0 SUBACTIVITY: OC

SUBACTIVITY TITLE: UPGRADES PRODUCTIVITY CHALLENGE

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130010	0	-2643		-2401	-2401	-1256	1005	-1234	-1439
CE 35EW31301	0	109		-2	-2	404	1359	302	-64
TOTAL	0	-2534	0	-2403	-2403	-852	2364	-932	-1503
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130010	0	-2643		-2401	-2401	-1256	1005	-1234	-1439
CE 35EW31301	0	109		-2	-2	404	1359	302	-64
TOTAL	0	-2534	0	-2403	-2403	-852	2364	-932	-1503
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The technical scope funded within this ADS is summarized in five major categories. Those categories are: Configuration Management, Contamination Zone Reduction, Operations and Maintenance Infrastructure, Training Upgrades, and Procedure Upgrades. The following is a brief description of each category:

(1) Configuration Management is the element that identifies and completes upgrades required to fully implement DOE Order 5480.19, 'Conduct of Operation/Requirements for DOE Facilities,' and DOE Order 4200.1, 'Requirements for drawing verification, simplified facilities control diagrams and maintain good engineering drawing maintenance practices,' to develop the programs necessary for implementation of these upgrades and to ensure these upgrades are reflected in operating procedures and practices. Tank Farm drawings will be field verified, consolidated and converted to CADD. This element also performs component labeling of Electrical distribution and instrumentation systems.

(2) Contamination Zone Reduction is the element that provides funding for identification, characterization, removal and disposal of contaminated surface areas within the Tank Farms.

(3) Operations and Maintenance Infrastructure is the element that provides funding for identification and implementation of upgrades to: Occurrence Reporting, Records Management, Required Reading, Document Control Centers, Loop Calibration procedures, Preventative Maintenance Procedures, Predictive Maintenance procedures, Job Control System and the Spare Parts Program.

(4) Training is the element that provides funding for identification and implementation of upgrades to: Operator certification, continuing training, Facility Specific Instructor Qualification, Operations and Shift Manager training, Accreditation, Training drills, Maintenance craft and supervisor training, technical staff training, computer based training, power operator training, and training facility improvements.

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

Tank Farm facilities will be maintained in a safe and environmentally clean condition in accordance with current standards and specifications. Facilities will be provided for all aspects of Tank Farm management with particular emphasis on safe storage of high-level, TRU liquid, and other tank wastes. As a minimum, facilities upgrades shall consist of an upgraded safety analysis report, a clear and succinct well defined design basis, which will be sustained by a configuration control system.

Contamination will be eliminated from within the Tank Farm compound and its surrounding area. Maintenance work backlog will be reduced through the careful review of work requests and the development of specific work packages. Additional resources will be required to support this effort and to prevent another backlog from developing.

DOE Tiger Team fact findings will be satisfied. Projects and maintenance efforts will be planned in support of all Tiger Team Finding and Response Actions Plans (FRPA).

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

PRODUCTIVITY CHALLENGE
PRODUCTIVITY CHALLENGE

TASKS COMPLETED TO DATE:

Conduct of Operations - Completed field verification and As-Building of 360 drawings, completed 241-C Tank Farm Soil sample plan.

Conduct of Operations improvements should be completed by the year 2000.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Conduct of Operations: Complete 250 drawing upgrades, complete operating and maintenance procedures for 241-A Complex. Initiate procedure training upgrades. Complete component labeling for 241-A Tank Farm Complex.

Conduct of Operations: Drawing upgrades, operating and maintenance procedures, contaminated soil removal, component labeling and spare parts upgrades will be completed for 241-B Tank Farm and initiated at 241-C Tank Farm.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

Complete component labeling for 241-B Tank Farm. Consolidate and field verify 241-B Tank Farm drawings. Initiate maintenance and operating procedure upgrades for 241-B Tank Farm equipment.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Complete drawing upgrades, maintenance and operating procedure upgrades, and contamination zone reduction activities for 241-C, 241-S, 241-T, and 241-U Tank Farm.

All conduct of Operations improvements will be complete for 241-C, S, T and U Tank Farms with the exception of training upgrades which will be complete after the year 2000.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

National Environmental Policy Act (NEPA)
Code of Federal Regulations 40 CFR 1500
Washington State Environmental Policy Act
Washington Administrative Code (WAC) - WAC - 1987 Resource Conservation and Recovery Act of 1976
Clean Air Act 40 CFR 61, 40 CFR 52
Tiger Team Assessment Findings
Technical Safety Appraisal Concerns
DOE Order 5400.1, General Environmental Protection Program DOE Order 5400.3, Hazardous and Radioactive Mixed Waste Program DOE Order 5400.5, Radiation Protection of the Public and the Environment DOE-RL 5480.1, Environmental Protection, safety, and Health Program for Department of Energy Operations
DOE Order 5480.5, Safety of Nuclear Facilities
DOE Order 5481.1B, Safety Analysis and Review System DOE Order 5820.2A, Radioactive Waste Management
DOE Order 6430.1A, General design Criteria
DOE Order 5480.19, Conduct of Operations/Requirements for DOE Facilities
DOE Order 4200.1, Requirements for drawing verification, simplified facilities control diagrams and maintain good engineering drawing maintenance practices

REGULATORY KEY ISSUES:

The Tank Farm conduct of operations upgrade program has been prioritized to provide emphasis and support to DOE-HQ/RL concerns for the health, safety, and environmental protection of all Hanford Tank Farm employees. Particular attention was devoted to human factors, such as, nutrition areas, rest rooms and change rooms. Environmental concerns are also addressed. Should these activities not be funded, the results would be sub standard working conditions for Tank Farm employees.

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

Target level funding will result in: Component labeling required by DOE Order 5480.19 could be delayed 2 years. contamination zone cleanup activities will be delayed 2 years. Development of maintenance procedures is accordance with DOE Order 4330.1 & 4A will also be delayed 2 years. Training program upgrades required by DOE Order 5480.5, 18, 19, and 20 will delayed 6 years.

REQUIRED TECHNICAL DEVELOPMENT:

E-T010

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1120 ADS SUF: 1 SUBACTIVITY: JJ

SUBACTIVITY TITLE: Productivity Challenge

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: 25400 TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130010	0	-26			-116	-25	31	-42	-64
TOTAL	0	-26	0	0	-116	-25	31	-42	-64
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130010	0	-26			-116	-25	31	-42	-64
TOTAL	0	-26	0	0	-116	-25	31	-42	-64
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

E-T010

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1120 ADS SUF: 1 SUBACTIVITY: OJ

SUBACTIVITY TITLE: Tank Farms Radiological Support Facility (W-188)

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: 25400 TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996 TOTAL
OE EW3130010		0
LI 39EW31301		0
TOTAL		0
DIRECT FTE		0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130010	299	200			800	300	400	468	400
LI 39EW31301	0	0			0	1800	11100	13300	3400
TOTAL	299	200	0	0	800	2100	11500	13768	3800
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130010	299	200			800	300	400	468	400
LI 39EW31301	0	0			0	1800	11100	13300	3400
TOTAL	299	200	0	0	800	2100	11500	13768	3800
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

1120-01-0005 COMPLETE DESIGN FOR PROJECT W-188

3/30/98

3/30/98

1120-01-0015 START CONSTRUCTION, PROJECT W-188

4/30/98

4/30/98

1120-01-0010 COMPLETE CONSTRUCTION OF
RADIOLOGICAL SUPPORT FACILITIES

6/30/00

6/30/00

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1120 ADS SUF: 2 SUBACTIVITY: GG

SUBACTIVITY TITLE: productivity challenge

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: 31295 TEC: 24600

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130010	0	-130		-218	-218	0	0	0	0
TOTAL	0	-130	0	-218	-218	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130010	0	-130		-218	-218	0	0	0	0
TOTAL	0	-130	0	-218	-218	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1120 ADS SUF: 2 SUBACTIVITY: OG

SUBACTIVITY TITLE: TANK FARM VENTILATION UPGRADES (W-030)

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: 31295 TEC: 24600

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996 TOTAL
OE EW3130010		482
LI 39EW31301		800
TOTAL		1282
DIRECT FTE		0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130010	1193	1000		700	700	0	0	0	0
LI 39EW31301	1000	0		800	800	0	0	0	0
TOTAL	2193	1000	0	1500	1500	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130010	1193	1000		700	700	0	0	0	0
CE 35EW31301	0	0		0	0	0	0	0	0
LI 39EW31301	1000	0		800	800	0	0	0	0
TOTAL	2193	1000	0	1500	1500	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1120 ADS SUF: 4 SUBACTIVITY: HH

SUBACTIVITY TITLE: PRODUCTIVITY CHALLENGE

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130010	0	-104			-189	-189	-118	39	0
TOTAL	0	-104	0		-189	-189	-118	39	0
DIRECT FTE	0	0	0		0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130010	0	-104			-189	-189	-118	39	0
TOTAL	0	-104	0		-189	-189	-118	39	0
DIRECT FTE	0	0	0		0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1120 ADS SUF: 4 SUBACTIVITY: OH
 SUBACTIVITY TITLE: REPLACEMENT OF THE CROSS SITE TRANSFER SYSTEM (W-058)
 INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93
 PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

 LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3130010		TOTAL
LI 39EW31301		1111
TOTAL		17295
DIRECT FTE		18406
		0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130010	463	800		1300	1300	1400	500	0	0
LI 39EW31301	6500	18910		17295	17295	0	0	0	0
TOTAL	6963	19710	0	18595	18595	1400	500	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130010	463	800		1300	1300	1400	500	0	0
LI 39EW31301	6500	18910		17295	17295	0	0	0	0
TOTAL	6963	19710	0	18595	18595	1400	500	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1120 ADS SUF: 6 SUBACTIVITY: FF

SUBACTIVITY TITLE: PRODUCTIVITY CHALLENGE

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130010	0	-2083		-1324	-1324	-1038	1270	-2205	-2943
TOTAL	0	-2083	0	-1324	-1324	-1038	1270	-2205	-2943
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130010	0	-2083		-1324	-1324	-1038	1270	-2205	-2943
TOTAL	0	-2083	0	-1324	-1324	-1038	1270	-2205	-2943
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1120 ADS SUF: 6 SUBACTIVITY: OF
SUBACTIVITY TITLE: TF UPGRADES RESTORATION AND SAFE OPERATIONS MSA (W-314)

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3130010		TOTAL
LI 39EW31301		7776
TOTAL		20011
DIRECT FTE		27787
		0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130010	0	16000		9100	9100	12300	16300	24400	18400
LI 39EW31301	0	0		20011	20011	54614	131222	220363	205810
TOTAL	0	16000	0	29111	29111	66914	147522	244763	224210
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130010	0	16000		9100	9100	12300	16300	24400	18400
LI 39EW31301	0	0		20011	20011	54614	131222	220363	205810
TOTAL	0	16000	0	29111	29111	66914	147522	244763	224210
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

1120-06-0075 W-314C, F&R

7/30/94

7/30/94

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

1120-06-0070 W-314C ENGINEERING STUDY

2/28/95

3/28/95

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

1120-06-0020 W-314 ADVANCED CONCEPTUAL DESIGN

12/31/96

12/31/96

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1120 ADS SUF: 7 SUBACTIVITY: MM

SUBACTIVITY TITLE: PRODUCTIVITY CHALLENGE

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130010	0	-104		-88	-88	-42	0	0	0
CE 35EW31301	0	2		0	0	0	0	0	0
TOTAL	0	-102	0	-88	-88	-42	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130010	0	-104		-88	-88	-42	0	0	0
CE 35EW31301	0	2		0	0	0	0	0	0
TOTAL	0	-102	0	-88	-88	-42	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1120 ADS SUF: 7 SUBACTIVITY: OM

SUBACTIVITY TITLE: AGING WASTE TRANSFER LINE PROJECT W-028

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3130010		TOTAL
		513
TOTAL		513
DIRECT FTE		0

TARGET CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130010		338		800		600	600	501	0	0
CE 35EW31301		0		100		0	0	0	0	0
LI 39EW31301		5000		3819		0	0	0	0	0
TOTAL		5338		4719	0	600	600	501	0	0
DIRECT FTE		0		0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130010		338		800		600	600	501	0	0
CE 35EW31301		0		102		0	0	0	0	0
LI 39EW31301		5000		3819		0	0	0	0	0
TOTAL		5338		4721	0	600	600	501	0	0
DIRECT FTE		0		0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

AGING WASTE TRANSFER LINE W-028

AGING WASTE TRANSFER LINE W-028

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
1120-07-0010	INITIATE W-028 CONSTRUCTION	5/01/95	5/01/95
1120-07-0005	COMPLETE W-028 DEFINITIVE DESIGN	6/30/95	6/30/95

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
1120-07-0015	COMPLETE W-028 CONSTRUCTION	12/31/96	12/31/96
1120-07-0020	COMPLETE W-028 PROJECT CLOSEOUT ACTIVITIES	6/30/97	6/30/97

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1120 ADS SUF: 8 SUBACTIVITY: OP

SUBACTIVITY TITLE: PROJECT L-091 200 E OFFICE FACILITY

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

B&R	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130010	134	0		0	0	0	0	0	0
LI 39EW31301	1200	0		0	0	0	0	0	0
TOTAL	1334	0	0	0	0	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

B&R	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130010	134	0		0	0	0	0	0	0
LI 39EW31301	1200	0		0	0	0	0	0	0
TOTAL	1334	0	0	0	0	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1130 ADS SUF: 0 SUBACTIVITY: OA

SUBACTIVITY TITLE: TECHNICAL INTEGRATION & PLANNING

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: WASTE CHARACTERIZATION

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3120074		TOTAL
CE 35EW31207		92714
TOTAL		6550
DIRECT FTE		99264
		0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3120074	65284	83689			92714	92714	71257	54267	54354
CE 35EW31207	10800	5162			6550	6550	4717	3390	2328
TOTAL	76084	88851	0	0	99264	99264	75974	57657	56682
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3120074	65284	83689			92714	92714	71257	54267	54354
CE 35EW31207	10800	5162			6550	6550	4717	3390	2328
TOTAL	76084	88851	0	0	99264	99264	75974	57657	56682
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

PROGRAM MANAGEMENT & ADMINISTRATION
CHARACTERIZATION PROGRAM ADMINISTRATION
CHARACTERIZATION PROGRAM ADMINISTRATION

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
1130-00-0005	SAMPLING/ANALYSIS/TANK CHARACTERIZATION REPORT SCHEDULE	3/31/94	3/31/94

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

E-T010

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1130 ADS SUF: 0 SUBACTIVITY: OB

SUBACTIVITY TITLE: TECHNOLOGY DEVELOP & APPLIED ENGINEERING

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO:

TPC:

TEC:

DESCRIPTION: WASTE CHARACTERIZATION

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3120074		TOTAL
CE 35EW31207		-13492
TOTAL		-4
DIRECT FTE		-13496
		0

TARGET CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3120074		-4795	-10896		-13492	-13492	-6016	4230	-4914	-6343
CE 35EW31207		0	89		-4	-4	334	884	149	-36
TOTAL		-4795	-10807	0	-13496	-13496	-5682	5114	-4765	-6379
DIRECT FTE		0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3120074		-4795	-10896		-13492	-13492	-6016	4230	-4914	-6343
CE 35EW31207		0	89		-4	-4	334	884	149	-36
TOTAL		-4795	-10807	0	-13496	-13496	-5682	5114	-4765	-6379
DIRECT FTE		0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

PRODUCTIVITY CHALLENGE/RATE CHANGES
PRODUCTIVITY CHALLENGE/RATE CHANGES

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
1130-00-0170	ISSUE IN-SITU CORE BIT INSTRUMENTATION PROGRAM PLAN	2/18/94	2/18/94
1130-00-0155	DEMONSTRATION OF IN SITU CHARACTERIZATION	9/15/94	9/15/94
1130-00-0160	DEMONSTRATE IR MOISTURE DETECTION IN HOT CELL	9/23/94	9/23/94

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
1130-00-0070	DIRECT DRILL BIT TEMPERATURE MONITORING	1/31/95	1/31/95

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1200 ADS SUF: 0 SUBACTIVITY: AA

SUBACTIVITY TITLE: TWRS Program Management and Integration

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: TANK DISPOSAL PROGRAM

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3120075		TOTAL
TOTAL		42541
DIRECT FTE		42541
		0

TARGET CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3120075		0	50949	49786		49786	46983	47292	47683	49157
TOTAL		0	50949	49786	0	49786	46983	47292	47683	49157
DIRECT FTE		0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3120075		0	50949	49786		49786	46983	47292	47683	49157
TOTAL		0	50949	49786	0	49786	46983	47292	47683	49157
DIRECT FTE		0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The Program Management and Integration subactivity has been expanded from the previously submitted FY94 ADS to include more centralized management and control of the TWRS Program and its elements. This is due to the establishment of the TWRS Program as an MSA, and the resultant need for better integration and standardization of formal management and control practices. For the target case, as defined herein, this expansion is initiated in FY95. For the planning case, which is discussed under items 12 and 13, the expansion is initiated in FY94. In addition, scope currently contained within this subactivity for FY93 has been identified in separate subactivities for FY94 and beyond. These include ESH assurance and public involvement planning, Quality Assurance, and Information Resource Management. Discussion of technical scope(01), tasks completed to date(05), and current year (FY93) task narrative(06) for these areas are contained within the TDDs for subactivities 120000AE,AF and AG, respectively, and not included here.

The technical scope is defined in two parts. Part I is that which is currently contained in this ADS, less that moved to separate subactivities in FY94. Part II is the expanded scope to be implemented in FY95 (FY94 for planning case).

Part I:

Provide for overall program planning and integration. Establish and maintain the TWRS Program baseline through the development and control of the top level TWRS Program baseline documentation. These include the Program Plan, Program Management Plan, and the Decision Plan. In support of this effort, participate in program planning and strategy development activities, interfacing closely with the system engineering and technology planning efforts. Oversee the application of existing management systems and/or development of new management systems necessary to implement the management system requirements defined in the Program Management Plan. Participate in the development and maintenance of the overall technical approach for the TWRS. Monitor five-year planning activities to insure consistency and resolution with the program baseline.

Provide for the coordination with external interface groups. Such groups include technical advisory boards, GAO, IG, DNFSB, and NAS. Provides facilities and clerical support to these groups as necessary.

Part II:

Provide overall program management functions for the TWRS program elements. As an MSA, it is necessary to ensure proper integration, prioritization and standardization within the TWRS program. This will be achieved through a central program management function that will programmatically plan and direct the line organizations. Approximately twelve such functions are anticipated, each supported by a three person management, planning and clerical team.

Program management includes the development and/or approval of plans

affecting their respective program element. All decisions which impact the TWRS Program are made through this activity. Includes:

Review and acceptance of the TWRS Program Plan and Program Management Plan

Interface with RL to include programmatic, administrative and technical personnel

Negotiation of work scope and resources with the line functions

Negotiate fiscal year work plans and work authorization with RL

Integration and interface with the program integration, system engineering, and business management functions concerning their respective program element

Provides overall program leadership and organizational management of work.

The program management functions are currently being performed within the applicable program element (ADSs (e.g. retrieval, pretreatment) for FY93 and FY94.

RELATED ACTIVITIES NARRATIVE:

Due to the nature of this subactivity in providing overall program integration and program management, it relates to all other ADSs within the TWRS Program. Specifically, it relates directly with the system engineering and business management elements within this ADS. System engineering will maintain the overall TWRS technical baseline which will be planned and implemented through this TDD. Business management will be responsible for procedures and implementation of the management system defined in the PMP.

KEY ASSUMPTIONS:

Even though approved as an MSA, implementation of MSA requirements as defined in DOE Order 4700.1 for the TWRS program will be deferred under the target case, until such time as sufficient funding is provided to proceed with the facilities necessary to support the program disposal mission. Any ongoing construction projects which would qualify as an MSA will comply with the requirements.

Program activities for the target case will move towards the implementation of the New Technical Strategy.

Application of MSA requirements to the TWRS Program will be on a graded approach based on the nature of work.

ACTIVITY BY PRIORITY:

Program Management (beginning in FY95)

Program Planning and Integration, to include development and maintenance of the Program Plan and Program Management Plan External Interface management

Development and maintenance of the decision plan

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

The new technical strategy was developed and documented for the TWRS program in terms of a strategy description document, a 200-300 activity level logic, and rough-order-of-magnitude schedules and cost estimates.

A draft of the TWRS Program Plan was completed and submitted for review.

A draft of the TWRS Program Management Plan was completed and submitted for review.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Establish the new technical strategy for the TWRS Program as a basis for renegotiation of the TWRS Program with the regulatory community. Prepare draft Program and Program Management Plans in support of the new technical strategy and the approval of the TWRS Program as a major system acquisition (MSA). Define the management systems necessary for conduct of the TWRS Program as an MSA. Continue to maintain the TWRS Decision Plan in FY 1993. Support the review and update of the Program Plan and Program Management Plan in preparation for the rebaselining of the TWRS Program, which is expected in early FY94. Initiate the development of definitive baseline data in support of the new technical strategy.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

Complete the development of the baseline for the new technical strategy. Finalize the TWRS Program Plan and Program Management Plans and issue, representing the TWRS Program baseline as negotiated with the regulatory agencies. Maintain these documents up to date based on changes to the program. Provide for program integration activities, to include what if exercises and program replanning activities. Participate in program level technical planning to ensure consistency between the technical baseline and the cost and schedule baselines.

Monitor the development and implementation of management systems necessary to manage the TWRS Program as an MSA. Note, that at the target level, significant management system enhancements will be deferred until such time as funding is increased to allow for design and construction of facilities directed towards the final disposition of tank wastes.

Program Management includes 1.3 million expense dollars and 7.1 million Line Item dollars to be carried over to FY 1995 as reserve to meet funding needs for TWRS Phase II Liquid Effluent streams, project W-242.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Maintain the TWRS Program Plan and Program Management Plan. Provide for program integration activities, to include what if exercises and program replanning activities. Participate in program level technical planning to

ensure consistency between the technical baseline and the cost and schedule baselines. The TWRS Program will be very dynamic, as technology is developed and deployment decisions are made. This will require significant effort to properly control the program baseline in a structured and traceable manner.

Continue to monitor the development of management systems necessary for the control of the program as discussed under FY94.

Provide overall program management for the TWRS Program elements. This includes management, planning and documentation of assigned elements. Review program level documentation for consistency and achievability. Prepare and negotiate fiscal year plans and concur in DOE authorization of work. Maintain change control of assigned elements, to include support of negotiations for Tri-Party Agreement changes. Act as primary interface on both technical and programmatic activities, to include issues resolution, with DOE. Report status and issues associated with assigned elements. Prepare and maintain program element level plans as necessary, consistent with the overall Program Plan and Program Management Plan.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Same as for FY95

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

DOE Order 4700.1, Project Management System, establishes requirements for MSAs.

DOE Notice 4700.5, Project Management Guidelines, provides groundrules for management systems based on the nature of the work.

Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement)-specifies procedures for change control, reporting, etc.

REGULATORY KEY ISSUES:

The TWRS Program is a unique MSA. In accordance with DOE Order 4700.1, an MSA is a form of a project. At the same time, 4700.1 defines a project as a 'well defined' scope with a known start and completion. This definition does not apply to the TWRS Program. Also the TWRS Program includes ongoing and future projects as defined by 4700.1, some of which would be MSAs in themselves. Therefore the MSA requirements in 4700.1 do not totally apply at the TWRS Program level. A system will be developed based on 4700.1 and 4700.5 which is tailored to the needs of the TWRS Program. The projects within the TWRS Program will comply with 4700.1, except for those requirements which are fully satisfied at the program level.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The planning level recognizes that the TWRS Program is an MSA, and provides the necessary resources to properly implement the requirements necessary to plan, manage and control the program as such. Additional support staff to RL is provided to assist RL in the development and implementation of procedures and methods for carrying out their assigned responsibilities, and to assist RL in better monitoring those actions of the M&O contractors. Historically, the field office has relied heavily on the contractors to be the primary performer in the management and control arena. This is not acceptable for the TWRS Program as an MSA. The field office is expected to become more involved in the definition, planning and control functions, and in overseeing the contractor performance in order to ensure program success.

Additional support staff to RL is also provided for technical oversight and planning in the areas of quality, safety and environmental. Again, RL cannot rely solely on the M&O contractors. RL must become more involved in the day to day activities, to include the application of quality requirements within their own function as required by DOE Order 5700.6C.

The planning level centralizes the program management function by the M&O contractor in FY94 instead of FY95. This is significant towards the development and proper implementation of the program as an MSA. The program element management level will be more involved up front in the definition and implementation of management systems to be used on the program over the next many years. Earlier centralization should help in

this transition to a MSA approach in managing the program.

The planning level allows for the quicker implementation of the MSA approach. Under the target level, new facilities, and the technology necessary to support them is significantly deferred. Therefore, implementation of the MSA approach can also be deferred. If these facilities are not deferred, then this planning level is necessary to provide the necessary level of discipline and control on the activities.

CONCERNS AT PLANNING LEVEL:

The planning level applies a significant increase in resources to achieve a sound baseline, and proper control of that baseline, for the TWRS Program as an MSA. The resultant benefit is to complete the program on or ahead of schedule in the proper sequence and priorities, thereby minimizing the overall costs. Such an effort would not be cost effective if we continue not to support the necessary funding levels, or if the program strategy continues to change significantly over time due to change in administration positions.

The target case provides no reserve funding to cover uncertainties in the program and changing requirements in order to minimize impact to negotiated schedules. The planning case provides a management reserve to cover such situations that will arise. The current program assumes no new safety issues associated with the tank farms. A management reserve would provide funding to cover the new scope of work if new issues evolved without impacting the rest of the program. Regulatory requirements may change. Even if the requirement does not change, historically the work necessary to comply with requirements has increased beyond that planned as it is better defined with the regulators through permitting, closure and other actions. Once the Tri-Party Agreement is renegotiated, it is important for its success to minimize future extensions. A management reserve would provide the capability to maintain the commitments while still addressing the new or better defined scope of work.

REQUIRED TECHNICAL DEVELOPMENT:

The TWRS Program is a unique MSA involving future projects, technology and operations over 35 to 40 years. Management systems necessary to provide the appropriate level of management, planning and control in a cost effective manner will require creativity in the development and/or application of proper management tools.

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1200 ADS SUF: 0 SUBACTIVITY: AB

SUBACTIVITY TITLE: Productivity Challenge

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: TANK DISPOSAL PROGRAM

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3120075	42812	-6634	-7245		-7245	-3966	3686	-4311	-7863
TOTAL	42812	-6634	-7245	0	-7245	-3966	3686	-4311	-7863
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3120075	42812	-6634	-7245		-7245	-3966	3686	-4311	-7863
TOTAL	42812	-6634	-7245	0	-7245	-3966	3686	-4311	-7863
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This activity is responsible for providing support to the Projects Department of TWRS including: IRM services, policies and procedures, development and maintenance, data management, and records inventory and disposal. In addition, this activity will provide business management support to the Projects Department of TWRS including: Fiscal Year Work Plan (FYWP) and Multi Year Program Plan (MYPP) input development, milestone development and reporting, the TWRS Baseline Management Activity, funds management for project, scheduling, cost estimating, and support for project validation.

Project Management will ensure compliance with applicable DOE orders and directive pertaining to the management processes and systems of TWRS major system acquisitions, major projects and projects.

RELATED ACTIVITIES NARRATIVE:

The work in this activity is related to the project work contained in ADSs 1120, 1210, 1220, 1230, 1240, 1270, and 1280.

KEY ASSUMPTIONS:

Projects will be required to support the TWRS mission and the requirements of the DOE 4700 family of orders will remain in place.

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Initiated development of TWRS Projects Procedures.

Supported the monthly reporting and review processes.

Participated in the TWRS baseline development.

Developed the required input for the annual budget process.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Support the WHC and DOE management team, implement a management system consistent with 4700.5 requirements, including procedures, reporting, data analysis, and schedule. Develop and input the Projects data for the DOE budget process.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

Same as FY93

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Same as FY93

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Same as FY93

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:
None

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1210 ADS SUF: 0 SUBACTIVITY: AA

SUBACTIVITY TITLE: SST RETRIEVAL PROJECT

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
CE 35EW31301	200	509	500		500	0	0	0	0
LI 39EW31301	0	0	0		0	10700	21100	22100	18200
TOTAL	200	509	500	0	500	10700	21100	22100	18200
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
CE 35EW31301	200	509	500		500	0	0	0	0
LI 39EW31301	0	0	0		0	10700	21100	22100	18200
TOTAL	200	509	500	0	500	10700	21100	22100	18200
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

Double-Shell Tank (DST) Retrieval Development includes the identification of waste characterization requirements, development of simulated wastes, analytical investigations, development of DST retrieval test equipment and facilities, and scale tests of equipment to determine retrieval performance requirements for mobilization, transport, and mixing uniformity. Retrieval test data and performance requirements will be provided as input for retrieval project designs, based on the waste characteristics of the tanks to be retrieved.

These performance requirements will ultimately be demonstrated during full-scale process tests (Project W-151, ADS 1210-2) and during the initial phase of retrieval (ADS 1210-0-AJ). Initial focus of this testing work is on retrieval of waste from safety watch list tanks and providing suitable feed to HWVP. The work includes reviews by the technology working group for reviewing technical documents and plans.

Improvements to current mixing pump designs will be solicited from pump vendors and evaluated against functional criteria. Selected candidates will be procured and operationally tests at WHC or another DOE Site. The results will feed the design of the remaining DSTs in W-211 (1210-03-AE) and the final DST retrieval (1210-0-AP).

RELATED ACTIVITIES NARRATIVE:

This subactivity provides data and requirements for retrieval projects included in ADS 1210-2, 1210-3, and 1210-0-AP, and for retrieval operations in ADS 1210-0-AJ.

KEY ASSUMPTIONS:

- Mixer pumps will successfully mobilize the sludges in most Hanford DST's.
- Tank 101-SY will be the first DST to be retrieved and transferred. -

Confirmation of DST development tests using scale equipment (1/12-scale and 1/4 scale) will be provided by a full-scale process test in Tank 241-AZ-101, using equipment provided by Project W-151 (ADS 1210-2). -If the process tests indicate mixing pumps can not mobilize all DST wastes, enhancements and/or alterations will be developed.

ACTIVITY BY PRIORITY:

All activities supporting retrieval of Tank 101-SY and other DST watch list tanks are priority 1. All other activities are priority 2.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

DST RETRIEVAL TECHNOLOGY

DST RETRIEVAL TECHNOLOGY

TASKS COMPLETED TO DATE:

NCAW retrieval development has progressed through design of a prototypical system. Testing and evaluation of tank erosion and corrosion during mixer pump operations using simulated NCAW is complete. Testing and evaluation of mixer pump jet forces on 1/6 scale prototype equipment is complete. A number of engineering studies have been completed, including an analysis of aging waste tank bump associated with retrieval of high heat wastes (NCAW), the potential for corrosion during retrieval dilution and in-tank washing activities, and an NCRW Small volume Retrieval System Engineering Study.

Completed the relocation of the 1/12 scale mixer pump test facility to the 336 Building, and have initiated construction of the 1/4 scale test facility. Prototypical instrumentation was developed to measure the uniformity of 101-SY waste mixed during mixer pump operation.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

DST development activities will support retrieval Projects, including the retrieval of 101-SY and other watch list tanks and to support HWVP start-up.

These activities include developing Data Quality Objective for characterization of tank waste in support of the retrieval program. Investigations will continue into the mechanism for the mobilization of high shear sludge with an additional emphasis on the effects of solids dissolution during mobilization. The results will be a high shear sludge stimulant recipe that mimics actual chemical waste. Scoping tests will be performed to investigate slurry uniformity in the 1/12-scale DST Retrieval Test Facility, along with supporting TEMPEST computer analysis. Comments on the 90% design review of the 1/4-scale DST Retrieval Test Facility will be incorporated and construction activities will be initiated.

Retrieval tasks will be performed to support ongoing retrieval projects (1210-3-AE), such as a report on the potential aerosol/vapor generation during initial retrieval and a report that examines the potential plugging problem during slurry transport. In addition, a letter report providing equipment recommendations will be provided to project W-211 (1210-3-AE).

The Retrieval Technology Working Group (TWG) reports and past retrieval value engineering studies will be investigated to recommend mixing pump enhancements and retrieval alternatives for future scale testing. These methods will be applicable to the high shear process test in Tank 241-AW-103.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

DST development activities will continue to support retrieval projects, including the retrieval of 101-SY and other watch list tanks. The high strength sludge simulant recipe will be used to perform a series of 1/12-scale tests to determine a mixer pump cleaning radius equation for high shear wastes. This equation will take into account the partial dissolution of waste during retrieval. Upon favorable comparisons between TEMPEST and 1/12-scale uniformity testing, additional TEMPEST work will be completed that simulates multiple, uncentered pumps. Results from these configurations will be confirmed during a set of 1/4-scale tests. If further aerosol/vapor generation studies are identified, these will be initiated. Construction and check-out of the 1/4-scale facility will be completed and the facility will be ready for testing. The slurry transport loop will be evaluated to determine if installation during FY 94 is

appropriate. Concepts for the improved mixing pump design will be solicited from pump vendors and evaluated by WHC and other DOE Sites.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

DST development activities will continue to support retrieval projects, including the retrieval of 101-SY and other watch list tanks and to support HWVP start-up.

A Test Plan will be finalized for the process test of the mixer pump retrieval system to be installed in Tank 241-AZ-101 by Project W-151 (ADS 1210-2). These documents will insure that information on mixer pump performance will be monitored, documented and fed back as data points into the mobilization and uniformity tasks and follow-on retrieval projects.

Based on bench scale results, a single, high shear retrieval system will be chosen and a test plan developed for 1/12 or 1/4-scale testing. An improved mixing pump design(s) will be selected and procurement completed.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
1210-00-0085	Complete Conceptual Design for High-Shear Strength Waste Process	9/30/97	9/30/97

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Technology development activities supporting Project W-211 and retrieval of high shear strength sludge such as sludge mobilization, slurry uniformity, aerosol/vapor generation and slurry transport will be continued. Test support and data evaluation will be provided for the NCAW retrieval process test beginning in FY 1996. The improved mixer pump will be tested and evaluated and the results fed into DST retrieval system designs.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

This activity is required to support programmatic commitments agreed to in the Hanford Federal Facility Agreement and Consent Order (M-02, M-03), and to comply with the Record of Decision for Disposal of Hanford Defense High-Level, Transuranic, and Tank Wastes, Federal Register V. 53 (72), pp. 12449-12453, April 14, 1988 in accordance with NEPA requirements of 40 CFR 1500-1508. In addition this activity supports compliance with the following federal and state regulations and DOE orders: 40 CFR 265.196, Response to Leaks or Spills and Disposition of Leaking or Unfit-for-Use Tank Systems. 40 CFR 265.197, Closure and Post Closure Care. 40 CFR 268, Land Disposal Restrictions. WAC 173-303-610, Closure and Post-closure. 40 CRF 61, National Emission Standards for Hazardous Air Pollutants, WAC 246-247, Radiation Protection--Air Emissions, DOE Order 5820.2A, Radioactive Waste Management, DOE Order 5400.1, General Environmental Protection Program, and DOE Order 5400.5, Radiation Protection of the public and the Environment.

TPA milestones M-02 and M-03 will not be met if this subactivity is not funded because this subactivity provides the basic technology to retrieve wastes from DSTs. Pretreatment and vitrification cannot proceed if the wastes cannot be retrieved. This would also violate the Hanford Defense Waste EIS Record of Decision.

REGULATORY KEY ISSUES:

The retrieval program is an integral part of the Tank Waste Remediation System (TWRS) Program. In December 1991, safety and legal drivers forced major changes in this program. First, the primary focus of the TWRS program was substantially changed from disposal of tank waste to resolution of tank safety issues. Second, it was determined that the key pretreatment facility essential to both the new and the old focus, could not meet the legal requirements for processing tank waste. This left no suitable pretreatment alternative. As a result of these programmatic changes, existing program and program element logics, work breakdown structures, goals and objectives, work scopes and schedules were made obsolete. All of these program requirements are being redeveloped as part of the TWRS Decision Plan, due for completion in August 1993. Since these program requirements are not currently in place, the work scope proposed in this TDD is based upon best technical judgement of the work required in 1994. Cost estimates are based upon a variety of data, from best technical judgements to fully validated project cost estimates. Work scope and cost estimates will change as the Decision Plan is finalized.

TPA milestone M-02 is currently in negotiation. The outcome of these negotiations could change the sequence for retrieval of Hanford tank wastes.

The priority for development of DST retrieval processes depends heavily on the final sequence established for retrieval of Hanford Tank Wastes.

COMP/PROG BENEFITS AT PLANNING LEVEL:

Activity funding is established at the target level.

CONCERNS AT PLANNING LEVEL:

None

REQUIRED TECHNICAL DEVELOPMENT:

This task provides the technology development analyses, test data, and performance requirements for retrieval of waste from Hanford DST's.

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OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1210 ADS SUF: 0 SUBACTIVITY: ZZ

SUBACTIVITY TITLE: RETRIEVAL

INSTALLATION: HANFORD

CATEGORY: WM

DEFENSE/NON-DEFENSE:

VERSION DATE: 5/12/93

PROGRAM: EM

PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO:

TPC:

TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3130010		TOTAL
CE 35EW31301		1837
TOTAL		500
DIRECT FTE		2337
		0

TARGET CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130010		11855	17656	26324			26324	30214	70497	62399
TOTAL		11855	17656	26324		0	26324	30214	70497	62399
DIRECT FTE		0	0	0		0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130010		11855	17656	26324			26324	30214	70497	62399
TOTAL		11855	17656	26324		0	26324	30214	70497	62399
DIRECT FTE		0	0	0		0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

RETRIEVAL

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1210 ADS SUF: 2 SUBACTIVITY: AD

SUBACTIVITY TITLE: W-151 Tank 101-AZ Waste Retrieval System

INSTALLATION: HANFORD

CATEGORY: WM

DEFENSE/NON-DEFENSE:

VERSION DATE: 5/12/93

PROGRAM: EM

PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO:

TPC:

TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996 TOTAL
OE EW3130010		0
CE 35EW31301		0
LI 39EW31301		0
TOTAL		0
DIRECT FTE		0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130010	1021	1392	256		256	0	0	0	0
CE 35EW31301	500	2035	0		0	0	0	0	0
LI 39EW31301	2000	5000	0		0	0	0	0	0
TOTAL	3521	8427	256	0	256	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130010	1021	1392	256		256	0	0	0	0
CE 35EW31301	500	2035	0		0	0	0	0	0
LI 39EW31301	2000	5000	0		0	0	0	0	0
TOTAL	3521	8427	256	0	256	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This project [92-D-177 (W-151, 101-AZ Retrieval System)] will install two 300 hp mixer pumps and associated control systems in Tank 101-AZ. These two pumps are to mobilize the solids with a mixer pump as a process test with actual Hanford tank wastes. Tank 101-AZ contains approximately 970,000 gallons of Neutralized Current Acid Waste (NCAW) and includes approximately 55,000 gallons of settled solids. The retrieval process includes suspending the tank solids in the liquid using high-volume liquid mixer pumps for transfer.

The process test will evaluate the mixer pumps as the technique to suspend solid for future removal. Each mixer pump takes in slurry from the bottom of the tank and discharges the fluid horizontally through two opposing nozzles located 18 inches from the tank bottom. Simultaneously, the nozzle assembly rotates slowly to sweep the entire projected area of the tank bottom. Equipment that must be present during mixer pump operation, such as thermocouples and dry wells, will be strengthened or redesigned to withstand the expected pump forces produced by the pump discharge. Additional monitoring and control systems will be installed to measure performance of the mixer pumps and Tank 101-AZ operation. Systems will be developed to decontaminate the existing equipment as it is removed from the tank and placed into burial containers.

RELATED ACTIVITIES NARRATIVE:

The W-151 project is directly related to retrieval development activities (ADS 1210-0-AA), tank waste safety issues (ADS 1110), and the W-211 project (ADS 1210-0-AE). Information gained from construction of the W-151 full-scale retrieval system will be used to construct other tank waste retrieval systems on site (e.g., Project W-211). In turn, these retrieval systems are needed to get the waste from the tanks to mitigate safety problems and to be pretreated and transferred to Grout (ADS 1230) or to the HWVP project (ADS 1240) for disposal processing.

KEY ASSUMPTIONS:

Tank 101-AZ solids are assumed to provide the initial feed to HWVP. Retrieved wastes must be available to support waste form qualification testing and to support HWVP frit procurement.

ACTIVITY BY PRIORITY:

Work scope under this subactivity is priority 2, since its supports compliance with Tri-Party Agreement Milestones related to tank waste disposal, including specifically M-02-04. Also, work scope under this subactivity supports implementation of the Record of Decision for the HDW-EIS, in compliance with the National Environmental Policy Act (NEPA).

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

W-151, 101-AZ TANK RETRIEVAL SYSTEM

W-151, 101-AZ TANK RETRIEVAL SYSTEM

TASKS COMPLETED TO DATE:

The Engineering Study, FDC and CDR were completed in prior years. Testing of the prototype removal equipment with contamination control features as been completed.

Studies were performed that determined current tank (and tank component) conditions, solid waste burial, storage requirements, mixer pump procurement specifications, and structural integrity assessments of in take components subject to mixer pump forces. The PSAR was completed in April 1992.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
1210-02-0005	Complete W-151 Definitive Design	6/30/94	6/30/94

CURRENT YEAR (FY 1994) TASK NARRATIVE:

Engineer/Constructor construction forces will begin electrical upgrades. The bid/award of fixed price contractor for electrical upgrades will be initiated. Mixer pump procurement will be initiated and awarded. Definitive design will continue.

Prototype equipment development will be continued for waste type assay probes and for sludge mobilization verification; retrieval equipment for the 6 and 42 inch risers; and other tooling and instrumentation needed for determining current tank conditions. A SARP will be started for burial transport of the removed equipment. Definitive design will continue. Mixer pump specification will be completed.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
1210-02-0010	Complete Construction for W-151	9/30/95	9/30/95

BUDGET YEAR (FY 1995) TASK NARRATIVE:

The SARP preparation will be continued. The bid/award of burial boxes and transporter system will be started in 1993. Long lead procurement (e.g., mixer pumps) started in prior years will continue throughout the year. Completed construction will include electrical and utility upgrades. Completed engineering will include all definitive designs on retrieval system components.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

New work scheduled to start will include: personnel training for hardware retrieval operations; construction of tank modifications; and removal, replacement and disposal of specific in-tank hardware. The project informal readiness reviews will also be started.

Mixer pumps will be delivered and installed. SARPS will be completed and equipment removal activities will be started.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
1210-02-0015	Start W-151 NCAW Retrieval Process	12/31/96	12/31/96

Test

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Tank and infrastructure modifications necessary for testing of a two-pump sludge mobilization system will be completed and turned over to technology and tank farms personnel for the conduct of process tests in FY 1997.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

This activity is required to support programmatic commitments agreed to in the Hanford Federal Facility Agreement and Consent Order (M-01, M-02, M-03), and to comply with the Record of Decision for Disposal of Hanford Defense High-level, Transuranic, and Tank Wastes, Federal Register V. 53 (72), pp. 12449-12453, April 14, 1988 in accordance with NEPA requirements of 40 CFR 1500-1508. In addition this activity supports compliance with the following federal and state regulations and DOE Orders: 40 CFR 265.196, Response to Leaks or Spills and Disposition of Leaking or Unfit-for-use Tank Systems. 40 CFR 265.197, Closure and Post Closure Care. 40 CFR 268, Land disposal Restrictions. WAC 173-303-610, Closure and Post Closure Care. 40 CFR 61, National Emission Standards for Hazardous Air Pollutants. WAC 246-247, Radiation Protection -- Air Emissions. DOE Order 5820.2A, Radioactive Waste Management. DOE Order 5400.1, General Environmental Protection Program. DOE Order 5400.5, Radiation Protection of the Public and the Environment.

REGULATORY KEY ISSUES:

Verification of tank and tank component integrity which are necessary to complete this project.

TPA milestones M-02 and M-03 will not be met if this subactivity is not funded, because there will be no means to pretreat or get the initial feed to HWVP. This would also violate the Hanford Defense Waste EIS Record of Decision.

COMP/PROG BENEFITS AT PLANNING LEVEL:

Planning level and target level are the same.

CONCERNS AT PLANNING LEVEL:

None. This subactivity is funded in the Target Case.

REQUIRED TECHNICAL DEVELOPMENT:

None required.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1210 ADS SUF: 3 SUBACTIVITY: AE

SUBACTIVITY TITLE: W-211, Initial Tank Retrieval System

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3130010		TOTAL
LI 39EW31301		1666
TOTAL		17543
DIRECT FTE		19209
		0

TARGET CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130010		1996	1867	1666		1666	2747	2695	2365	2688
LI 39EW31301		7000	7455	17543		17543	24000	21500	22600	24700
TOTAL		8996	9322	19209	0	19209	26747	24195	24965	27388
DIRECT FTE		0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130010		1996	1867	1666		1666	2747	2695	2365	2688
LI 39EW31301		7000	7455	17543		17543	24000	21500	22600	24700
TOTAL		8996	9322	19209	0	19209	26747	24195	24965	27388
DIRECT FTE		0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

Project W-211, Initial Tank Retrieval Systems, includes development of supporting documentation, design, procurement, and construction of full-scale tanks waste retrieval systems for ten double-shell tanks (DST). This project will provide mixer pumps to mobilize the tanks contents, and transfer pumps for removal of the waste. Ancillary equipment and facility systems modifications will also be provided to support the retrieval and transfer of waste from the storage tanks. The retrieval of tank waste is driven by the urgency to remediate tanks safety issues, meet TPA milestones to proceed with the processing and disposal of Hanford waste, and to support the management of available tank storage space.

The scope of Project W-211 is split into three major packages. The first package includes tanks 101-SY, 102-AY, and 102-AZ and is scheduled to initiate design in FY 1994. The second package includes tanks 103-SY, 101-AP, and 104-AW and is scheduled to initiate design in FY 1996 under the planning case funding level. The third package includes tanks 103-AN, 104-AN, 105-AN, and 106-AN and is scheduled to initiate design in FY 1997 under the planning case funding level. This tank sequence is subject to program priorities.

RELATED ACTIVITIES NARRATIVE:

This activity supports critical path activities to mitigate tank waste safety issues, and to provide feed for the IPM, HWVP, and Grout Facilities.

This activity also support tank space management.

KEY ASSUMPTIONS:

Resolution of tank waste safety issues will require actions from this subactivity. Tank 102-AY will be the receiver tank for single-shell tank 106-C waste. Double-shell slurry and double-shell slurry feed tanks will require removal of solids prior to transfer of other waste types into these tanks. Grout operations will start in FY 1994. The IPM and HWVP facilities will start-up in December 1999. Four new DSTs will begin operation in 1999.

Mixer pumps will perform adequately to remove wastes from the tanks included in this project.

Changes in the tank retrieval sequence can be accommodated within project schedule and cost estimate contingencies.

The Hanford Defense Waste Environmental Impact Statement - Record of Decision provides sufficient NEPA documentation to proceed with this project.

ACTIVITY BY PRIORITY:

All activities funded by this TDD will be RL Priority A2, DOE-HQ Priority 1, in support of ongoing waste management operations activities required to maintain safe conditions.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

SWM support organizations implemented the SWITS program, revised Conduct of Operations procedures for compliance with DOE Order 5480.19, issued the SWM Conduct of Operations Applicability Matrix, revised SWM training procedure for compliance with DOE Order 5480.20, issued the SWM Training Implementation Matrix, completed the revision of SWM preventive maintenance procedures, installed operations and maintenance trailers; completed upgrade of parking lots for CWC, TRUSAF and 616 facilities; completed the RTR (X-ray) imaging chain upgrade and completed the steam upgrade for TRUSAF.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

The Field Operations Administration support received partial direct funding in FY94. The direct funding was provided in activities 2200-00-AB, AH, AK, and AL. The remaining additional costs came from the chargeback/assessment program. The base operating program is defined in the Outyear Task Narrative.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

See Outyear Task Narrative.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

See Outyear Task Narrative.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

This activity provides funding for the base Field Operations Administration support that operates and maintains Solid Waste Management (SWM) facilities. The operating SWM facilities include the Central Waste Complex (CWC), 224T Transuranic Waste Storage and Assay Facility (TRUSAF), 616 Nonradioactive Dangerous Waste Facility, and the Low Level Waste (LLW) Burial Ground.

The base operations for SWM Field Operations Administration include maintenance and operations planning and scheduling, Job Control System (JCS) administration, facility Cognizant Engineering, Design Engineering support, Operations Maintenance, Maintenance Engineering support, Training and Certification Administration, Program Management, Operations Support, and associated activities in the preparation to receive waste.

Activities include the issuance and review of operating procedures, internal tracking systems, conduct of operations procedures revisions, training and administration support; occurrence reporting, ALARA management activities, training audits, hazardous materials support, performance of the SWITS program, planning and scheduling of SWM operations, preventive maintenance and corrective maintenance activities; job control administration, material procurement, PM/CBRS procedure review and revision; material control, building administration, engineering/design for equipment modifications or upgrades, small project administration, configuration management of technical drawings, review and approval of operations procedure, work plans, and maintenance procedures; issuance and approval of engineering change notices (ECNs), Job Control System work package resolutions, maintenance of safety equipment lists, safety documentation, as-built drawings, plant forces work reviews, and specifications; performance of unreviewed safety question (USQ) screenings and evaluations, and oversight of operations for criticality safety.

DRIVERS AND IMPACTS INFORMATION

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

This Activity involves those administrative actions in support of the operations and maintenance of SWM facilities. As such, these facilities must be maintained and operated in accordance with State and Federal regulations.

Applicable Regulations:

10CFR 835.101 - (Occupational Radiation Protection)

40CFR 260-268 - (RCRA)

WAC 173-303-300 - (General Waste Analysis)

DOE Order 4330.4B - (Maintenance Management Program)

DOE Order 5480.19 - (Conduct of Operations)

DOE Order 5480.21, Ch. III - (Unresolved Safety Questions)

DOE Order 5480.23, Sec.4a - (Safety Analysis and Safety Analysis Reports)

DOE Order 5480.23, Sec.4b - (Safety Basis)

DOE Order 5480.24, Sec.7 - (Criticality Safety, Contractor Responsibilities)

DOE Order 6430.1a, 1324 - (Radioactive Solid Waste Facilities) DOE Order 6430.1a, 1550 - (Heating Ventilation and Air-Conditioning Systems)

DOE Order 6430.1a, 1640 - (Interior Electrical Systems)

REGULATORY KEY ISSUES:

None

COMP/PROG BENEFITS AT PLANNING LEVEL:

As directed by DOE-HQ guidance, planning level direct funding will maintain continuous safe operations in compliance with regulatory requirements.

Programmatically, planning level funding will allow the chargeback/assessment rates to stabilize and bring consistency between all DOE sites for workscope funded by chargeback/assessment rates.

CONCERNS AT PLANNING LEVEL:

None.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development is required.

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INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AU

SUBACTIVITY TITLE: W-221 PHASE 2 RETRIEVAL FACILITY ENGINEERING STUDY

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

B&R	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020	184	164		0	0	0	0	0	0
TOTAL	184	164	0	0	0	0	0	0	0
DIRECT FTE	2	2	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

B&R	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020	184	182		0	0	0	0	0	0
TOTAL	184	182	0	0	0	0	0	0	0
DIRECT FTE	2	2	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

Preliminary engineering studies will be completed in 1994 to determine the best alternatives for dealing with the remaining solid wastes, not in the scope of Project W-113, stored in the Low-Level Waste (LLW) burial ground and targeted for retrieval. These studies were begun and partially completed in 1993. The studies are in two parts, a characterization study of the trenches targeted for retrieval in Phase 2 and a plan of strategy options. This strategy report provides some preliminary retrieval strategies to be addressed between the U.S. Department of Energy (DOE), Westinghouse Hanford Company (WHC), and the Washington State Department of Ecology (Ecology). During trench characterization efforts, some containers requiring retrieval have been found to pose a high risk versus the cost/benefit to perform the retrieval activities. This report provides options on initiatives and waivers required to redesignate certain trenches for non-retrieval based upon the associated higher risk (i.e. descope the current retrieval effort plans). In addition, for trenches that are determined to be a risk for retrieval, this report provides information concerning sophisticated retrieval equipment that will need to be developed, and impacts to the retrieval/treatment facility system capabilities that would be required in the event that retrieval efforts were continued.

The characterization study defines the Phase 2 Retrieval scope and compiles current trench characterization data associated with Burial Ground 218-E-12B (2 trenches), 218-W-3A (14 trenches), 218-W-4B (3 trenches), and 218-W-4C (5 trenches). The selected option will allow final engineering and documentation of the Engineering Study, which will serve as the basis for the Functional Design Criteria for the Phase 2 Retrieval project. A FY 1999 line item is assumed, which requires a FY 1996 FDC. Phase 2 Retrieval, Project W-221 will be covered in Activity Data Sheet (ADS) 2250.

RELATED ACTIVITIES NARRATIVE:

ADS 2200-2, W-113 Project Phase I Retrieval.

KEY ASSUMPTIONS:

Treatment/Storage capability will be available to accept retrieved solid wastes.

ACTIVITY BY PRIORITY:

All activities funded in this TDD will be RL Priority A1, DOE-HQ Priority 1.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Two 1993 interim reports, WHC-IP-078, 'Buried Solid Waste Preliminary Retrieval Strategies',; and WHC-SD-W221-DP-001, 'Trench Characterization for Phase 2 Retrieval', were completed and issued. These reports are preliminary to the reports to be issued at the end of FY 1994.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Complete the preliminary engineering studies defining the trenches to be retrieved and the strategy options with recommendations. Completion of this effort will be documented by issuance of WHC-IP-0978 and WHC-SD-W221-DP-001 final reports.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

An engineering study will be completed to address various alternatives for retrieving TRU wastes stored in the burial grounds. These alternatives will be assessed and the best alternative will be recommended.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

None, project activities transfer to ADS 2250 in support of Phase 2 Retrieval, Project W-221.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

None, project activities transferred to ADS 2250 in support of Phase 2 Retrieval, Project W-221.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The HDW-EIS Record of Decision (ROD) commits the U.S. Department of Energy to retrieval of TRU waste.

The majority of the waste containers (17,760 out of 27,489) presently targeted for Phase 2 retrieval are identical or nearly identical to those to be retrieved during Phase 1 because of storage configuration, approximately the same number of years buried, only one or two containers slightly exceeding contact handled guidelines, reasonably good condition of the containers expected around the turn of the century (Phase 1 Retrieval well under way), and consequently a low risk of loose contamination in the trenches. These containers are in six of the 24 trenches presently defined as Phase 2. A large number of the remainder of the waste containers in Phase 2 are expected to have already degraded beyond 'marginal' condition and assumed to require special handling and repackaging capability for retrieval, especially since a large fraction of the waste in the 18 trenches containing this waste won't have a destination upon retrieval until late in the first decade of the 21st century. However, if the Phase 2 project is timed for start of retrieval on this relatively small portion of the total, the 17,000 containers expected to be in good condition to slightly marginal in 2000 will be becoming more marginal every year with increasing risk and cost of retrieval. It is these containers also which will in essence provide continuing TRU and LLW drums for WRAP 1 operation.

Phase 1 Retrieval is scheduled to support WRAP 1 ramp-up and its design operating rate through completion of Trench 4C-04 in about 2002. If Phase 2 Retrieval is delayed it would not be possible to accelerate a portion of the Project for retrieval of the good containers by this time, thereby disrupting the flow of retrieved drums through processing, as well as increasing the risk of marginal containers.

WRAP processing schedules are keyed toward obtaining feedstocks at a rate that matches the WIPP delivery requirements (complete shipments by CY 2018), concurrent with minimizing the facility costs that are processing rate dependent.

Applicable Regulations include:

WAC 173-303-645(1) and (1-2) - (Release from SMUs)
WAC 173-303-283 - (Performance standards), which prohibits degradation of groundwater or releases to the environment. Breached drums could cause violation of these regulations.

40CFR 191-14 - (Assurance requirements)
40CFR 171-16 - (Groundwater protection requirements)

REGULATORY KEY ISSUES:

TRU wastes must be retrieved from the burial grounds prior to closure of the burial grounds. Current retrieval schedules do not support the closure

schedules requested by the regulators in the Part B permit on the Low Level Burial Grounds.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The engineering study will address various alternatives for receiving TRU wastes stored in the burial grounds. This will support the program by providing the best alternative for continuation of the retrieval efforts.

CONCERNS AT PLANNING LEVEL:

Continued funding and program support to complete the engineering study on retrieval alternatives.

REQUIRED TECHNICAL DEVELOPMENT:

Remote and mobile techniques for exhuming, characterizing, shielding, and repackaging degraded waste containers and contaminated soils in a system designed to control the spread of contamination.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AV

SUBACTIVITY TITLE: SOLID WASTE LAB SUPPORT

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
TOTAL	291
DIRECT FTE	291
	2

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	323	141			291	291	296	274	279
CE 35EW31302	0	386			0	0	0	0	0
TOTAL	323	527	0		291	291	296	274	279
DIRECT FTE	2	1	0		2	2	2	2	2

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	323	364			324	324	349	343	313
CE 35EW31302	0	386			0	0	0	0	0
TOTAL	323	750	0		324	324	349	343	313
DIRECT FTE	2	2	0		2	2	2	2	2

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

Currently there are no capabilities at the Hanford Site to perform comprehensive, rapid, real-time field analyses of wastes, especially in drums. Recently thousands of backlog waste drums containing mixtures of radioactive and hazardous chemicals were discovered on the site. Incomplete information on the contents of these drums and the costs both in time and money for laboratory analyses has confirmed the need to rapidly screen waste for hazardous compounds both in the field during site remediation and in containers from on-site and off-site generators. A variety of waste types are expected, including solid debris, soil, and containers of liquids and powders. Sufficient information on the chemical and radiological characteristics is needed to manage the waste in accordance with current regulations and procedures. Both Federal and State hazardous waste regulations require waste generators and treatment/storage/disposal facilities to characterize and verify waste.

This activity provides for development and construction of an instrumented cart capable of field analyzing the wastes being put into drums or the contents of previously filled waste drums. The instrumentation will be off-the-shelf, state-of-the-art, and placed on cards with independent power which are capable of communicating via data, voice, and pictures with an office computer station.

Validation of each analytical method must demonstrate that it can be performed as planned. This process will begin with the instrumentation in the laboratory for specific compounds or groups of compounds. After demonstrations of the instrument's capabilities are established, the system will be moved to the field and similar test assays performed again under conditions that approximate working conditions. After these tests are complete, and the instrumentation function has been validated, then the instrumentation will be applied to waste drum samples. Further field assay and laboratory comparison will be performed at a high sample rate, and dependent upon success, is anticipated to decrease the amount of laboratory comparison required for validation.

The Lab-on-a-Cart project will be conducted in two phases. The phase 1 effort will be to assemble and validate detection analytical instruments for use in the field. At a minimum, the Phase I instrumentation will include a Fourier Transform Infrared (FT-IR) spectrometer for characterizing vapor mixtures and a Fourier Transform Raman Spectrometer (FT-Raman) for characterizing materials in gas, liquid, and solid phase. Phase 2 instrumentation will be more complex. In addition to the FT-IR and FT-Raman, computer, and communication capabilities of the Phase I design, it will include an X-ray fluorescence spectrometer, a fiber optic pH probe, and an atmospheric ion detector called LRAD for detecting the presence of ionizing radioactive materials. In addition, the system will have a glove box of flexible plastic for hazardous vapors with a nitrogen atmosphere to mitigate the hazards associated with combustible vapors.

RELATED ACTIVITIES NARRATIVE:

Treatment, storage, and disposal activities included in ADS 2200, 2220, and 2230.

KEY ASSUMPTIONS:

This activity assumes on-site waste must be verified at a rate of 5% of total waste received, using a combination of physical and chemical means, and that field chemical analysis does not need to meet SW-846.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

This activity is DOE-HQ Priority 1 and RL Priority A1.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

SOLID WASTE LAB CAPITAL EQUIP
SOLID WASTE LAB CAPITAL EQUIP

TASKS COMPLETED TO DATE:

Lab-on-a-Cart statement of work and proposal have been prepared identifying a phased approach to cart preparation. FY94 efforts reflect activities consistent with the proposal scope

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Procure off the shelf analytical equipment to demonstrate field applicability. A solid waste laboratory support program plan will be prepared. The plan will identify what laboratory support will be provided by the analytical functions onsite and what support will be provided by Solid Waste Management. The purpose of the plan will be to integrate Solid Waste analytical needs with the analytical capabilities onsite. Capital equipment funds will be used to purchase environmental monitoring and surveillance equipment to support Solid Waste facilities. Equipment includes portable gas sample and analysis equipment for use in and around the Solid Waste facilities. Construction of Phase I and II cart equipment is expected to be complete and testing initiated.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

Testing of the Phase I and II cart equipment will continue. Procurement of Laser Ablation Atomic Emission Spectroscopy instrumentation will occur and initiation of tests to begin. Set up and operation of the system at the CWC for waste verification will occur. Efforts to integrate the instrumentation the cart will begin. Field testing and validation as well as the development of signature chemical libraries will continue.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Efforts to integrate instrumentation and validate procedures will continue. Development of signature chemical libraries, specifically for application in WRAP will commence. In-field demonstrations of the use of equipment for designation of remediation waste will occur. Fiber optic probe attachments to the FT-IR, FR-Raman, and Laser Ablation Atomic Emission Spectrometer will be procured and tested.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Efforts to integrate instrumentation and validate procedures will continue. Development of signature chemical libraries, specifically for application in WRAP will continue. Testing of Fiber optic probe attachments to the FT-IR, FR-Raman, and Laser Ablation Atomic Emission Spectrometer will be finalized and incorporated into cart instrumentation. Additional equipment will be purchased to support solid waste operations as the need is identified.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

WAC 173-303-300 (Waste Analysis) (including verification)

40CFR 61.92 (Radioactive Waste Storage)

40CFR 264.13, 265.13, 262.11

WAC 173-303-283 (Performance Standards)

55CFR 22669-22670 (Periodic verification analysis)

DOE Order 5400.3 (Mixed waste program)

DOE Order 5480.19 (Conduct of operations)

REGULATORY KEY ISSUES:

Currently the level of confirmatory and verification sampling and analysis has not been determined. Actual levels of required sampling and analysis will be negotiated as part of the Part B Permit. The Hanford Site Permit (draft) currently suggests 5% for on-site and 10% for off-site waste verification. WHC has begun verifying waste received at CWC/LLBG at a rate of 1%. Non-radioactive Dangerous Waste Storage Facility is about to initiate a 5% verification.

COMP/PROG BENEFITS AT PLANNING LEVEL:

Real time sampling capability will be provided upon completion of the Lab-on-a-Cart project. The ability to provide analytical sampling of waste will be greatly enhanced.

CONCERNS AT PLANNING LEVEL:

The level of verification of equipment is uncertain. Until verification testing commences, actual laboratory analysis requirements are unknown.

REQUIRED TECHNICAL DEVELOPMENT:

Lab on a Cart and other field analysis capabilities need to be evaluated in order to reduce lab impact, turn-around time and be able to assess waste as it is received (real time) before formally accepting waste.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AW

SUBACTIVITY TITLE: SOLID WASTE PROGRAM MANAGEMENT

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
	4080
TOTAL	4080
DIRECT FTE	38

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	5379	3580		4080	4080	3120	3701	3882	4371
CE 35EW31302	0	158		0	0	47	0	0	47
TOTAL	5379	3738	0	4080	4080	3167	3701	3882	4418
DIRECT FTE	25	34	0	38	38	26	37	33	34

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	5379	4974		4213	4213	4439	4573	4710	4851
CE 35EW31302	0	158		0	0	47	0	0	47
TOTAL	5379	5132	0	4213	4213	4487	4573	4710	4899
DIRECT FTE	25	35	0	34	34	34	34	34	34

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This activity provides for the on-going program management portion of the Solid Waste Program. The program management responsibilities include the management of low-level, transuranic, mixed, and non-radioactive hazardous wastes.

Included in Program management responsibilities are the activities to support short and long range planning such as the Hanford Strategic Plan, Hanford Mission Plan, Hanford Fiscal/Multi-Year Program Plan, and the DOE-HQ Five-Year Plan.

Program management is responsible for a variety of monthly reporting activities to RL including support to the Site Management System and the DOE-HQ monthly Progress Tracking System (PTS).

Also included in this activity are the budgeting and scheduling functions required to support program management responsibilities.

RELATED ACTIVITIES NARRATIVE:

This activity is related to all solid waste treatment, storage, and disposal (TSD) functions associated with low-level, mixed, transuranic, and non-radioactive hazardous wastes. Related Activity Data Sheets (ADSs) include 2200-0, 2200-1, 2200-2, 2220-1, 2230-1, and 2250-0.

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

Program planning is a RL Priority A2, DOE-HQ Priority 1 activity. Program planning is required to maintain key infrastructure for facilities that are directly related to safe facility configuration. This activity ensures that Solid Waste facilities are integrated with other Hanford Missions to maintain safe operations and protect the environment.

Also, integrating infrastructure ensures that safety analysis reports are completed and safety related equipment is available to maintain a safe operating configuration.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

PROGRAM CONTROL (SKIP)
PROGRAM CONTROL (SKIP)

TASKS COMPLETED TO DATE:

Activities completed to date include completion of the Fiscal Year Work, Plan Multi-Year Program Plan, and the FY96 Five-Year Plan.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
2200-00-0075	SUBMIT SOLID WASTE FIVE YEAR PLAN	5/01/94	5/01/94
2200-00-0135	SUBMIT SOLID WASTE MULTI-YEAR PROGRAM PLAN	8/31/94	8/31/94

CURRENT YEAR (FY 1994) TASK NARRATIVE:

Complete the Fiscal/Multi-Year Program Plan and the Five Year Plan. Also to be completed on a monthly basis is monthly reporting activities (SMS, PTS) and daily program management responsibilities.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
2200-00-0005	SUBMIT SOLID WASTE FIVE YEAR PLAN	5/01/95	5/01/95
2200-00-0145	SUBMIT SOLID WASTE MULTI-YEAR PROGRAM PLAN	8/31/95	8/31/95

BUDGET YEAR (FY 1995) TASK NARRATIVE:

Tasks to be completed include support to the Land Disposal Restricted (LDR), preparation of the Long Term ADP Acquisition plan, Fiscal/Multi-Year Program Plan, Five-Year Plans, monthly reporting activities, and ongoing program management activities.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
2200-00-0010	SOLID WASTE FIVE YEAR PLAN	5/01/96	5/01/96
2200-00-0150	SUBMIT SOLID WASTE MULTI-YEAR PROGRAM PLAN	8/31/96	8/31/96

PLANNING YEAR (FY 1996) TASK NARRATIVE:

Tasks completed each year include support to the LDR preparation of the Long Term ADP Acquisition Plan, Fiscal/Multi-Year Program Plan, Five-Year Plans, monthly reporting activities, and ongoing program management activities.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
2200-00-0020	SUBMIT SOLID WASTE FIVE YEAR PLAN	5/01/97	5/01/97
2200-00-0155	SUBMIT SOLID WASTE MULTI-YEAR PROGRAM PLAN	8/31/97	8/31/97
2200-00-0025	SUBMIT SOLID WASTE FIVE YEAR PLAN	5/01/98	5/01/98
2200-00-0160	SUBMIT SOLID WASTE MULTI-YEAR	8/31/98	8/31/98

2200-00-0030	PROGRAM PLAN SUBMIT SOLID WASTE FIVE YEAR PLAN	5/01/99	5/01/99
2200-00-0165	SUBMIT SOLID WASTE MULTI-YEAR PROGRAM PLAN	8/31/99	8/31/99
2200-00-0015	SUBMIT SOLID WASTE FIVE YEAR PLAN	5/01/00	5/01/00
2200-00-0035	SUBMIT SOLID WASTE MULTI-YEAR PROGRAM PLAN	8/31/00	8/31/00

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Tasks completed each year include support to the LDR preparation of the Long Term ADP Acquisition Plan, Fiscal/Multi-Year Program Plan, Five-Year Plans, monthly reporting activities, and ongoing program management activities.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Regulatory drivers include those laws, regulations, and DOE Orders associated with maintaining an adequate management infrastructure to successfully operate a TSD facility.

Specific Regulatory Requirements include:

40CFR 265-15(c) - (Inspections/problems)
40CFR 265-31 - (Operation and maintenance)
40CFR 268 - (LDR)

10CFR 1021 - (NEPA)

WAC 173-303-281 - (Notice of Intent)
WAC 173-303-282 - (Siting Criteria)
WAC 173-303-310(2) - (Security)
WAC 173-303-340 - (Preparedness)
WAC 173-303-800 - (Permit requirements)

DOE Order 2250.1C - (Cost Schedule Control)
DOE Order 1332.1A - (Uniform Reporting System)
DOE Order 4700.1 - (Project Management System)
DOE Order 5400.1 - (General Environmental Protection) DOE Order 5700.3 -
(Cost Estimating, Analysis, and Cost Standardization) DOE Order 5820.2A -
(Program Planning)

REGULATORY KEY ISSUES:

There are no regulatory key issues.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The workscope and funding at the planning and target levels are the same.

CONCERNS AT PLANNING LEVEL:

None

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required.

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INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AX

SUBACTIVITY TITLE: TRU WASTE CERTIFICATION

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R		FY1996
OE EW3130020		TOTAL
TOTAL		254
DIRECT FTE		254
		2

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	272	240			254	254	247	207	243
TOTAL	272	240	0		254	254	247	207	243
DIRECT FTE	2	2	0		2	2	2	2	2

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	272	267			282	282	291	300	310
TOTAL	272	267	0		282	282	291	300	310
DIRECT FTE	2	2	0		2	2	2	2	2

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This activity funds the required engineering support and Certification Review Committee (CRC) for TRU waste management activities. This activity includes support of offsite contractor visits, Waste Isolation Pilot Plant (WIPP) activities, preparation and submittal of the annual TRU certification report to RL, response to internal audits and WIPP certification audits/surveillances, development of site specific waste acceptance criteria and coordination for certification activities and Quality Assurance (QA) support.

RELATED ACTIVITIES NARRATIVE:

This activity is related to the operation of the Transuranic (TRU) Storage and Assay Facility (TRUSAF) provided for in ADS 2200-00-AL.

KEY ASSUMPTIONS:

It is assumed that the base operating activities will be fully direct funded to the planning level for this activity.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

All activities funded by this TDD will be RL Priority A1; DOE-HQ Priority 1, in support of ongoing waste management operations activities required to maintain safe conditions.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

This activity completed the submittal of the annual revisions of the draft report of TRU Waste Certification and the final report of TRU Waste Certification Plan activities for FY 1993. The TRU Waste Certification Plan is updated each year for changing technology, criteria, and regulations. The draft of the Trupact II Authorized Methods for Payload Control (TRAMPAC) was issued.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

This activity funds the required engineering support and Certification Review Committee (CRC) for TRU waste management activities. This activity includes support of offsite contractor visits, Waste Isolation Pilot Plant (WIPP) activities, preparation and submittal of the annual TRU certification report to RL, response to internal audits and WIPP certification audits/surveillances, development of site specific waste acceptance criteria and coordination for certification activities and Quality Assurance (QA) support.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

See Outyear Task Narrative

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

See Outyear Task Narrative.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

This activity funds the required engineering support and Certification Review Committee (CRC) for TRU waste management activities. This activity includes support of offsite contractor visits, Waste Isolation Pilot Plant (WIPP) activities, preparation and submittal of the annual TRU certification report to RL, response to internal audits and WIPP certification audits/surveillances, development of site specific waste acceptance criteria and coordination for certification activities and Quality Assurance (QA) support.

DRIVERS AND IMPACTS INFORMATION

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Applicable Regulations Include:

DOE Order 5820.2A - (Radioactive waste management)

REGULATORY KEY ISSUES:

If the Waste Isolation Pilot Plant (WIPP) site does not open, additional permitted storage space will be required along with the implementation of plans to perform the necessary upgrades to 224-T so that it will be able to continue safe and compliant operations.

COMP/PROG BENEFITS AT PLANNING LEVEL:

As directed by DOE-HQ guidance, planning level direct funding will maintain continuous safe operations in compliance with regulatory requirements.

CONCERNS AT PLANNING LEVEL:

None.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AZ

SUBACTIVITY TITLE: ENVIRONMENTAL RESTORATION DISPOSAL FACILITY

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO:

TPC:

TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
	847
TOTAL	847
DIRECT FTE	8

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	0	0			847	847	1467	1422	1655
TOTAL	0	0	0		847	847	1467	1422	1655
DIRECT FTE	0	0	0		8	8	12	12	13

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	0	0			1286	1286	2061	2134	2229
TOTAL	0	0	0		1286	1286	2061	2134	2229
DIRECT FTE	0	0	0		10	10	15	15	15

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This activity provides funds to operate the W-296 Environmental Restoration Disposal Facility (ERDF). Completion of construction is scheduled for September 1996; therefore, funding for operations begins in FY97.

The ERDF is designed to receive waste from Environmental Remediation (ER) efforts on the Hanford Site. It is estimated that as much as 21 million cubic meters of waste will be generated in the ER effort. This waste is expected to be primarily soils contaminated with various Hazardous, Low-Level radioactive, and Low Level Mixed Wastes (HW, LLW, & LLMW). The ERDF will be designed and constructed for permanent disposal of containerized and bulk waste derived from environmental restoration and activities at past-practice Hanford sites through the end of 2001. The facilities will be sized to dispose of all the wastes derived during the entire 22-year life of environmental remediation. The ERDF will provide disposal facilities, rail and tractor/trailer container handling capability, equipment and personnel decontamination facilities, maintenance facilities, fencing, roads, utilities, inventory control systems, communication systems, and administrative offices, and other appurtenances necessary to support the development and operation of the disposal capacity. The ERDF trench will be constructed using conventional equipment and techniques that have been proven in similar applications. Based on current estimated waste receipts, a total of 10 cells will be constructed as part of Project W-296. Initially, the first ten cells will be excavated, and only the first four will be lined. These four cells will provide capacity for about 1.1 million m³ (1.5 million yd³) of waste, which is expected to accommodate all the waste during the first two years. In the second year, two more cells will be lined. It is then planned to line two cells each year thereafter. This rate of expansion is consistent with expected waste receipt defined in the FDC and can be easily modified should waste receipts change.

RELATED ACTIVITIES NARRATIVE:

Various ER projects related to the cleanup of the Hanford Site, including the remediation of the 300 area and 100 B/C areas, can have a direct effect on this project. The facility construction schedule and the date for scheduled operations are driven by Tri-Party Agreement Milestones.

KEY ASSUMPTIONS:

Project W-296 will construct a facility for the permanent disposal of containerized and bulk waste derived by environmental restoration and activities of past-practice sites through the end of 2001. The facilities will be sized to dispose of all the wastes derived during the entire 22-year life of environmental remediation. Project W-296 will provide disposal facilities, rail and tractor/trailer container handling capability, equipment and personnel decontamination facilities, maintenance facilities, fencing, roads, utilities, inventory control systems, communication systems, and administrative offices, and other appurtenances necessary to support the development and operation of the disposal

capacity, in accordance with the FDC.

Project W-296 will provide for the construction of ten cells and the lining of four of these cells.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

This activity is a DOE-HQ Priority 1 and a RL Priority A1 in support of ongoing waste management operations activities required to maintain safe conditions.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Various engineering studies have been completed and the draft Conceptual Design Report (CDR) has been issued. The CDR is expected to be issued by the end of February 1994.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

No activities funded in this year.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

No activities funded in this year.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Personnel costs are included for one half of FY96. Facility staff will be required at some point prior to the commencement of operations. Six months should be allowed for staffing up and training. Although waste is not scheduled to arrive until FY97, some equipment maintenance will be required. This is covered by allowing 25% of normal operating maintenance.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Facility operations are scheduled to begin in FY97; therefore, operations costs begin in FY 1997. Prior to FY 1997 costs, including construction, permitting, training, startup, and operational readiness are covered in funding for Project W-296.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Project activities are required to achieve and maintain Compliance with Tri-Party Agreement Milestones.

Applicable Regulations Include:

40CFR 61.92 - (Control of radionuclide air emissions)
40CFR 264.14 - (Security of a TSD facility)
40CFR 264.17 - (Requirements for ignitable, reactive or incompatible waste)
40CFR 264.175(a-b) - (Containment)
40CFR 264.176 - (Special requirements for ignitable or reactive wastes)
40CFR 264.177(c) - (Special requirements for incompatible wastes)
WAC 173-303-141 - (Receive only designated wastes)
WAC 173-303-283(3) - (Performance standards)
WAC 173-303-300 - (Waste analysis)
WAC 173-303-310(2) - (Security)
WAC 173-303-320 - (Inspections)
WAC 173-303-330 - (Training)
WAC 173-303-340 - (Preparedness)
WAC 173-303-350 - (Contingencies)
WAC 173-303-355 - (SARA III)
WAC 173-303-370 - (Manifests)
WAC 173-303-380 - (Record keeping)
WAC 173-303-390 - (Reporting)
WAC 173-303-395(1,2,4) - (Other general requirements)
WAC 173-303-400 - (Interim status standards)
WAC 173-303-630(2,5,7,8,9) - (Use and management of containers)
40CFR 268.7(a) - (Certification LDR requirements)
40CFR 268.9(a) - (Need waste code)
40CFR 268.3(j)(1-2) - (Need test for corrosive and halogens)
55FR22669-22670 - (Periodic verification analysis)

REGULATORY KEY ISSUES:

The ERDF will ultimately receive waste materials from past practice sites in the 100 Area, 300 Area, and 200 Areas and waste associated with the decontamination and decommissioning of the defense weapons production facilities at the Hanford site. These wastes include wastes regulated under both CERCLA and RCRA. A RCRA Part B permit and possibly other permits must be in place prior to the ERDF receiving RCRA wastes. The ERDF must begin receiving wastes by September 1996 to allow remediation of waste sites at the Hanford site to begin in accordance with the TPA. It will not be possible to obtain the permits necessary for receiving RCRA wastes prior to the September, 1996 deadline; consequently, only CERCLA wastes will be received until the RCRA Part B and other necessary permits are in place. The disposal of RCRA waste can be administered under RCRA or potentially as a Corrective Action Management Unit (CAMU). If the disposal of RCRA waste is administered under RCRA, then all associated RCRA permits (such as air quality, treatment, storage, etc.) will be required. WHC is currently identifying the necessary permits and will develop and submit the applications for these permits. If the disposal of RCRA waste is

administered under CAMU, then it is uncertain what permits may apply. WHC is currently working with the EPA and Washington Department of Ecology to determine if the ERDF will be managed under RCRA or CAMU and what permits will be necessary for the facility.

To receive CERCLA waste, a proposed plan will be prepared by WHC and will eventually be provided to the public for comment. A Record Of Decision (ROD) will incorporate the elements of the proposed plan and must be in place prior to beginning the ERDF construction. The proposed plan will include some additional information beyond the normal CERCLA proposed plan so that this document and its review process will meet the requirements of the NEPA. Through the proposed plan and ROD documents, it is intended that the facility will comply with the necessary regulatory requirements to receive CERCLA waste in September, 1996.

COMP/PROG BENEFITS AT PLANNING LEVEL:

Funding of the ERDF will allow for compliance with TPA milestones to perform environmental remediation of the 100 Area. Planning level funding provides for waste criteria and program management activities.

CONCERNS AT PLANNING LEVEL:

From the standpoint of on-time delivery, the greatest concern is whether the required regulatory instruments can be obtained in time to meet the TPA milestone to receive waste.

At the planning level, SAR maintenance, permit modification, program support, and waste criteria activities would be performed.

REQUIRED TECHNICAL DEVELOPMENT:

None, the facility will utilize existing technology.

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: BA

SUBACTIVITY TITLE: THERMAL TREATMENT PRIVATIZATION

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
	772
TOTAL	772
DIRECT FTE	5

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	935	108			772	772	644	3028	3817
TOTAL	935	108	0		772	772	644	3028	3817
DIRECT FTE	1	1	0		5	5	4	4	4

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	935	660			4225	4225	4351	4482	4617
TOTAL	935	660	0		4225	4225	4351	4482	4617
DIRECT FTE	1	1	0		5	5	5	5	5

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The purpose of this activity is to provide thermal treatment as prescribed in 40CFR 268, for radioactive Resource Conservation and Recovery Act (RCRA) and Toxic Substance Control Act (TSCA) solid wastes. A thermal treatment service contract will be awarded to a commercial entity. The term of the service contract will be five years with five one-year extensions.

Ash from thermal treatment of low-level waste will be stabilized by the commercial entity, returned to the Hanford Site, and disposed in the Low-Level Waste Burial Grounds. The thermal treatment service is required for destruction of radioactively contaminated polychlorinated biphenyls (PCBs) currently in storage at the Hanford Site. In addition, a significant quantity of Radioactive Mixed Waste (RMW) contains F-Coded organics having concentration-based treatment standards for which incineration is the Best Demonstrated Available Technology (BDAT). All of the waste to be treated is classified as low level mixed waste. However, the waste will contain small quantities of alpha contamination.

RELATED ACTIVITIES NARRATIVE:

The Alternative activity to awarding a thermal treatment service contract to treat Hanford Site RMW is the W-242 Thermal Treatment Facility (ADS 2250-0-AG).

During FY 1994, privatized thermal treatment will be given full planning emphasis. Treatment of all of the RMW requiring thermal treatment may not be possible by a private company. Existing thermal treatment technologies are not designed to burn alpha-contaminated wastes. Transport of the RMW to offsite facilities may be subject to prohibitive regulatory requirements. At the end of FY 1994, a decision will be made regarding the feasibility of privatized thermal treatment. If privatized thermal treatment proves to be feasible, this activity will continue. Assessments of the alternative to treat waste at other DOE sites have indicated that the next best alternative to privatized thermal treatment is the installation of the W-242 Thermal Treatment Facility. Therefore, if privatized thermal treatment proves to be unfeasible, installation of the W-242 Thermal Treatment Facility will be given full planning emphasis.

KEY ASSUMPTIONS:

A commercial entity will be allowed up to five years (from date of award) for start-up preparation time. Waste treatment will begin in the FY 1996 time frame.

This activity was considered to have a low confidence level because it is in the preliminary planning phase. The costs are based on the costs of commercially available thermal treatment services for hazardous waste treatment as well as estimates of the costs of thermal technologies and processes required for the treatment of RMW.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

This activity is DOE-HQ Priority 2 and RL Priority A2.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Assessment of Commercial Interest and Capability: WHC Internal Memo, 'Thermal Treatment of Hanford's RMW - Summary Discussion of Vendor Capabilities', December 14, 1991. this assessment determined that commercial interest and adequate RCRA permitted capacity exist in the private sector. However, most facilities will require additional permits before treating radioactive waste.

Engineering Study for Waste Projections: WHC-SD-W242-ES-002, 'W-242 Thermal Treatment Facility Technical Basis Document'

CBD Announcement for Thermal Treatment RFP: December 1993

Preprocurement Plan for Thermal Treatment Service, December 1993

Action Description Memorandum For Thermal Treatment Service, January 1994

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

The planning case funding for FY 1994 provides for the award of a thermal treatment service contract to a commercial entity. A request for proposal (RFP) will be issued, and vendor proposals will be evaluated. Waste characterization documentation and an ash return procedure will be issued. The feasibility of privatized thermal treatment will be assessed. If privatized thermal treatment proves feasible, this activity will continue in subsequent years.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

The planning case funding for FY 1995 provides for vendor mobilization, NEPA documentation for private sector, waste shipment, and ash receipt and disposal. The schedule for these activities will be at the discretion of the thermal treatment service contractor. FY 1995 funding is contingent on the decision that privatized thermal treatment has proved feasible.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

The planning case funding for FY 1996 provides for vendor mobilization, NEPA documentation for private sector, waste shipment, and ash receipt and disposal.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

The planning case funding for FY 1997-98 provides for vendor mobilization, NEPA documentation for private sector, waste shipment, and ash receipt and disposal. The planning case funding for FY 1999 provides for the completion of the thermal treatment service contract. Completion of the thermal treatment service contract will include the completion of NEPA documentation for the private sector, the thermal treatment of all RMW requiring treatment, and the return and disposal of all ash.

The planning case funding for FY 2000 provides for the award of the first of five one-year extensions on the thermal treatment service contract. Waste treatment and ash return will continue for the tenure of award.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Federal and state regulations mandate that PCB wastes and certain hazardous wastes, including several mixed wastes, be treated by a high temperature thermal treatment process. Hanford Site RMW includes significant quantities of alpha-contaminated polychlorinated biphenyls (PCBs) as well as significant quantities of RMW containing F-Coded organics having concentration-based treatment standards for which incineration is the best demonstrated available technology (BDAT). These regulations also prohibit storage of such restricted waste beyond one year. FY 1994 activities are emphasizing the privatization of thermal treatment for the destruction of these wastes. Failure to implement required thermal destruction will result in one or more enforcement actions against the Hanford Site.

Applicable Regulations Include:

40CFR 761-60 - PCB waste disposal requirements
40CFR 761-70 - Standards for PCB waste incineration
40CFR 761-65 - Limits on PCB waste storage
40CFR 268-42(a)(1-2) - Thermal treatment requirements for land disposal
restricted waste
40CFR 268-50 Subpart E - Prohibition on storage of land disposal restricted
waste
WAC 173-303-140(4)(e)(i) - Incineration requirements for
organic/carbonaceous wastes
DOE Order 5820.2A - Radioactive Waste Management

REGULATORY KEY ISSUES:

Privatization of this activity may be possible, but issuing NEPA documentation for a commercial entity may be difficult.

COMP/PROG BENEFITS AT PLANNING LEVEL:

This activity allows for treatment and disposal of RMW in support of the Hanford site clean-up mission.

CONCERNS AT PLANNING LEVEL:

This activity will provide treatment capability necessary to avoid non-compliance with RCRA and TSCA regulations. It will improve activities identified in the Tiger Team Assessment. Assessment activities conclude that shipping waste to another DOE site for thermal treatment will have very limited success from a regulatory and waste acceptance perspective. Cost estimates suggest that privatized thermal treatment will be significantly cheaper than the construction of an onsite thermal treatment facility. Without thermal treatment service, the Hanford Site could be fined by the EPA or the State of Washington for RCRA and TSCA violations. Long-term storage of waste will increase the potential for adverse safety

and environmental impacts.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development is required.

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INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: BB

SUBACTIVITY TITLE: RMW STABILIZATION (PRIVATIZATION)

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	0	108		0	0	0	0	0	0
TOTAL	0	108	0	0	0	0	0	0	0
DIRECT FTE	0	1	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	0	121		0	0	0	0	0	0
TOTAL	0	121	0	0	0	0	0	0	0
DIRECT FTE	0	1	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The purpose of this activity is to provide Radioactive Mixed Waste (RMW) stabilization as prescribed in 40CFR 268, for radioactive Resource Conservation and Recovery Act (RCRA) and Toxic Substance Control Act (TSCA) solid wastes. A stabilization service contract will be awarded to a commercial entity. The term of the service contract will be five years with five one-year extensions.

Processed waste from the stabilization process will be returned to the Hanford Site, and disposed in the Low-Level Waste Burial Grounds. The commercial entity must certify that the treatment, waste container, surface contamination, and surface dose rates satisfy all applicable requirements for disposal at the Hanford site. All of the waste to be treated is classified as low level mixed waste. However, the waste will contain small quantities of alpha contamination.

RELATED ACTIVITIES NARRATIVE:

Alternative activities to awarding a RMW stabilization contract are limited to the Waste Receiving and Processing Facility Module 2A (WRAP 2A), ADS 2230-1.

During FY 1994, privatized RMW stabilization will be given full planning emphasis. Treatment by a private company of all certain RMW may not be economically feasible due to unforeseen technical and regulatory limitations. Transport of the RMW to offsite facilities may be subject to prohibitive regulatory requirements. By mid FY 1995, a decision will be made regarding the feasibility and economic benefit of privatizing RMW stabilization. If privatized RMW stabilization proves advantageous, this activity will continue. If not, installation of the WRAP 2A Facility will be continued with full planning emphasis.

KEY ASSUMPTIONS:

This activity was considered to have a low confidence level because it is in the preliminary planning phase. The costs are based on the costs of known stabilization technologies and processes required for the stabilization of RMW and are assumed less than that of WRAP Module 2A. Funding for the stabilization provided by a private entity is not shown in this ADS. It is assumed that in the event that privatization is selected as the preferred method of stabilization of RMW, then funding will be provided through ADS 2230-1 (WRAP Module 2A) to support the private contract.

ACTIVITY BY PRIORITY:

All activities are DOE-HQ Priority 2 and RL Priority A2.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Preliminary planning and evaluation of privatized RWM stabilization verses the existing WRAP 2A program was performed in December 1994. Informal discussions with the regulators were initiated. A first draft of the Pre-procurement Plan was completed in December 1994. A Value Engineering (VE) Study for privatized RMW stabilization technical requirements and procurement process was completed in January 1994.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

The planning case funding for FY 1994 provides for the issuance of an Request For Proposal (RFP) for the commercial stabilization of RMW. An Assessment of Commercial Interest and Capability will be completed. The Pre-procurement Plan will be completed and approved, a Commerce Business Daily announcement published, and the RFP finalized and issued. The Action Description Memorandum For Stabilization Services, and waste characterization documentation will also be completed. The NEPA documentation process will begin.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

The planning case funding for FY 1995 provides for evaluation of vendor proposals, and the completion of the evaluation of privatized RWM stabilization verses the existing WRAP 2A program. If this evaluation proves the feasibility and economic benefit of the privatization option, funding will be reprogrammed from ADS 2230-1 (WRAP 2A Construction) to support the award of a contract to a private firm for stabilization of RMW. NEPA documentation for the private sector will continue. By the end of FY 1995 assuming ADS 2230-1 funding has been reprogrammed, RMW waste shipment to the private contractor will begin.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Currently, no funding has been identified to support any FY 1996 activity on RMW stabilization privatization. Under the assumption that ADS 2230-1 funding has been reprogrammed to support RMW stabilization privatization, the planning case funding for FY 1996 will provide for vendor mobilization, NEPA documentation for private sector, RMW waste shipment, and the receipt and disposal of stabilized waste.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Currently, no funding has been identified to support any outyear activities on RMW stabilization privatization. Under the assumption that ADS 2230-1 funding has been reprogrammed to support RMW stabilization privatization, the planning case funding for FY 1997-2000 will provide for vendor mobilization, NEPA documentation for private sector, RMW waste shipment, and the receipt and disposal of stabilized waste.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The Department of Energy has written commitments to the public, The State of Washington, and the Federal Environmental Protection Agency to construct WRAP Module 2. These written commitments are in the form of the Record of Decision for the Hanford Defense Waste Environmental Impact Statement which was established in the Federal Register in 1988, and the Tri-Party Agreement (M-19-00) which was signed in 1989.

Construction and operation of WRAP Module 2A is part of the Tri-Party Agreement milestone M-19. This facility provides RCRA and State compliant mixed waste treatment. Privatization is an alternative to construction of the WRAP Module 2A on the Hanford site.

Applicable Regulations Include:

40CFR 264-312(a) - Ignitable/reactive limitations
40CFR 268-40 & 43 - LSR treatment standards
40CFR 268-50 - Waste treatment standards
40CFR 264-316(e) - Incompatible wastes
10CFR 56(a)(6) - Limitations on pyrophorics

WAC-173-303 - Washington State Dangerous Waste Regulations

DOE Order 5400.3 - Mixed waste program
DOE Order 5820.2A - Radioactive Waste Management
DOE ORDER 6430.1A - Design criteria

REGULATORY KEY ISSUES:

Privatization of this activity may be possible, but issuing NEPA documentation for a commercial entity may be difficult. The M-19 milestone in the Tri Party Agreement must be revised to permit off-site treatment of low-level waste in lieu of construction of WRAP Module 2A.

COMP/PROG BENEFITS AT PLANNING LEVEL:

This activity allows for stabilization and disposal of low-level RMW in support of the Hanford site clean-up. Preliminary cost estimates suggest that privatization of the stabilization process will offer significant cost benefit verses construction and operation of WRAP Module 2A.

CONCERNS AT PLANNING LEVEL:

RMW will continue to be generated during the Hanford site cleanup. This activity will provide treatment capability necessary to avoid non-compliance with RCRA regulations, and an alternative to WRAP 2A for compliance with Milestone M-19 in the Tri-Party Agreement.

REQUIRED TECHNICAL DEVELOPMENT:
No technology development is required.

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OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: BC

SUBACTIVITY TITLE: POLUTION PREVENTION

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

B&R	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	RL	BUD	LEGAL	ESH	TOTAL				
TOTAL	0	0	0	0	0	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

B&R	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020	0	0	247		247	345	355	265	258
CE 35EW31302	0	0	314		314	838	838	524	524
TOTAL	0	0	562	0	562	1183	1193	789	782
DIRECT FTE	0	0	1	0	1	1	1	1	1

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The Westinghouse Hanford Company performs pollution prevention and waste minimization activities under the Solid Waste Program. Pollution prevention and waste minimization activities to achieve compliance with DOE Orders and environmental regulations include setting goals, preparing plans and implementation schedules, training and awareness, prioritizing waste generating processes, establishing teams, analyzing processes for opportunities to prevent pollution and minimize waste, implementing identified opportunities, and reporting results. These activities are documented in pollution prevention facility plans and in EPA/State and DOE reports.

A comprehensive pollution prevention program will be maintained to ensure compliance with applicable orders and statutes. The waste generating processes will be analyzed to identify opportunities and these opportunities will be implemented to achieve measurable cost-effective pollution prevention and waste minimization results throughout the five-year period.

RELATED ACTIVITIES NARRATIVE:

This activity is related to Solid Waste operations activities in ADS 2200-00-AB, AH, AK, and AL.

KEY ASSUMPTIONS:

DOE Orders, state and federal environmental regulations will require continued pollution prevention and waste minimization from Hanford activities.

Additional wastes will be generated as part of the Hanford environmental cleanup mission. Pollution prevention and waste minimization activities will focus on reducing the amount of additional waste generated from cleanup activities

Pollution prevention and waste minimization will continue to be required in the future regardless of changes in the Hanford mission.

Pollution prevention and waste minimization will conserve resources, reduce pollutant releases, reduce compliance costs and long-term liabilities, and reduce waste handling costs

ACTIVITY BY PRIORITY:

All activities funded by this TDD will be RL Priority D1, DOE-HQ Priority 3, in support of DOE and regulatory pollution prevention and waste minimization requirements.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

PP EQUIPMENT

TASKS COMPLETED TO DATE:

A pollution prevention program plan has been in place since 1990-91.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:
NONE

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:
NONE

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:
See Outyear Task Narrative

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

This activity provides funding at the planning level for the Solid Waste Pollution Prevention program. Activities will occur at the Solid Waste Management (SWM) facilities. The operating SWM facilities include the Central Waste Complex (CWC), 224-T Transuranic Waste Storage and Assay Facility (TRUSAF), 616 Non-Radioactive Dangerous Waste Storage Facility, and the Low Level Waste (LLW) Burial Ground.

The Solid Waste Pollution prevention activities include identifying priority waste streams; establishing pollution prevention opportunity assessment (P2OA) teams; providing training and awareness programs; establishing goals and performing P2OAs on priority waste streams; economic, environmental, health, and safety evaluation of identified opportunities to determine those best to implement; implementation of identified opportunities to realize benefits; and reporting of results in DOE and EPA/State reports.

DRIVERS AND IMPACTS INFORMATION

ADS ID: 2200

ADS SUF: 0

SUB ACT: BC

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

This Activity involves pollution prevention actions at the SWM facilities. These activities must be performed in accordance with State and Federal regulations.

Applicable Regulations:

E.O. 12856, Federal Compliance With Right-to-Know Laws and Pollution Prevention Requirements

40CFR 264.73 - (RCRA - Waste Minimization program certification)

WAC 173-307 - (Pollution Prevention Plan)

DOE Order 5400.1, Ch. III, Sec. 4 - (Special Program Planning Reqmnts)

DOE Order 5400.3 - (Hazardous and Radioactive Mixed Waste Program)

DOE Order 5820.2A, Ch. I, Sec. 7 - (Management of High Level Waste)

Ch. II, Sec. 3.b - (Management of TRU Waste)

Ch. III, Sec. 3.c - (Management of Low-Level Waste)

REGULATORY KEY ISSUES:

Generator specific requirements will not be achieved if these activities are not funded.

Waste reduction, cost savings, and reduced future liability will not occur if activities are not funded.

Toxic Chemicals Release reduction initiatives and the identification, requesting, allocating, reporting of funding for pollution prevention and waste minimization activities will not occur if these activities are not funded.

COMP/PROG BENEFITS AT PLANNING LEVEL:

Planning level funding provides pollution prevention program compliance for Federal and state regulations, and DOE Orders. The pollution prevention opportunity assessments provide a formal mechanism to identify waste minimization and pollution prevention opportunities that can be implemented to achieve quantifiable, cost-effective waste reduction. Pollution prevention and waste minimization will conserve resources, reduce pollutant releases, reduce compliance costs and long-term liabilities, and reduce waste handling costs.

CONCERNS AT PLANNING LEVEL:

At the planning level, all regulatory and DOE requirements identified under Regulatory Key Issues will not be met if funding is not provided.

REQUIRED TECHNICAL DEVELOPMENT:

Research and development of techniques to prevent pollution and minimize waste may be necessary for some types of waste generating processes.

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INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: BD

SUBACTIVITY TITLE: SMALL PROJECT SUPPORT W-300 & W-312

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
	912
TOTAL	912
DIRECT FTE	10

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	412	311			912	912	96	93	108
CE 35EW31302	0	281			0	0	0	0	0
TOTAL	412	592	0		912	912	96	93	108
DIRECT FTE	6	4	0		10	10	1	1	1

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	412	573			1013	1013	113	116	120
CE 35EW31302	0	393			0	0	0	0	0
GP 39EW31302	0	899			0	0	0	0	0
TOTAL	412	1865	0		1013	1013	113	116	120
DIRECT FTE	6	6	0		10	10	1	1	1

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This activity provides for RCRA Compliant storage of radioactively contaminated metallic sodium until a treatment process is identified that will convert this metallic sodium into a non-hazardous waste form. In 1967, 138 tons of radioactively contaminated metallic sodium in five 16,000-gallon containers (two full, one half full, two minimum heel) was received from the Hallam Nuclear Power Facility located in Hallam, Nebraska, and stored in the 2727-W Facility. This sodium had been used by the Hallam Nuclear Power Facility as their primary reactor coolant. In 1975, 25,850 kg (~ 6,720 gallons) of radioactive sodium in 158 55-gallon drums was received from Atomics International and stored at 2727-WA. This sodium had been used by Atomics International as primary coolant in their Sodium Reactor Experiment (SRE).

Originally this inventory of metallic sodium was to be converted into sodium hydroxide and then used at the Hanford Plutonium-Uranium Extraction (PUREX) Facility to neutralize liquid discharges to tank farms. However, the announcement from the U.S. Department of Energy (DOE) to permanently shut down PUREX operations results in an indeterminate delay in the use of converted sodium hydroxide. Potential alternate users of the converted sodium hydroxide, such as the Hanford B Plant and facilities at Savannah River Plant, were evaluated, but not found to be viable. In the event that no beneficial use is identified, the sodium will be declared waste and will be regulated by Washington State Dangerous Waste Regulations.

Project W-300, 'Sodium Material Reduction and Storage', is a 1995 General Plant Project (GPP) that creates RCRA compliant storage space within the Central Waste Complex (CWC) for the Hallam Nuclear Power Facility (Hallam) sodium currently stored in the 2727-W Facility.

Project W-312, 'Mixed Waste Storage', is a Capital Equipment Not Related To Construction (CENRTC) Project that procures eight low flashpoint storage modules and anchors them onto an asphalt pad at the CWC. These modules will provide RCRA compliant storage for the SRE sodium currently stored in the 2727-WA facility. This prior-year funded activity is being completed in Fiscal Year 1994.

RELATED ACTIVITIES NARRATIVE:

Final disposition of the Hallam and SRE metallic sodium will be through treatment to a non-hazardous waste form and subsequent burial at the Central Waste Complex. Currently, privatization efforts are being pursued under ADS 2200-0-BN to identify a private vendor who will accept the metallic sodium, perform a treatment to convert the sodium to a non-hazardous form, and return it to Solid Waste Programs for final burial.

The alternative activity to identification of a private vendor to react the metallic sodium will be through the use of the process utilized by the DOE Fast Flux Test Facility (FFTF) sodium storage facility currently planned under ADS 6642-0. As in the privatization case, reacted metallic sodium will be returned to Solid Waste Programs for final burial.

KEY ASSUMPTIONS:

This activity assumes that no beneficial use nor available treatment for the sodium will be identified. It further assumes that the sodium is currently classified as material, not waste; but will be reclassified as Resource Conservation and Recovery Act (RCRA) mixed waste in Fiscal Year 1994.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

In the event that the sodium is declared waste, all activities will become RL Priority A2 and DOE-HQ Priority 2.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

RECONTAINERIZATION EQUIPMENT
RECONTAINERIZATION EQUIPMENT

TASKS COMPLETED TO DATE:

A monthly status letter was issued during 1992 to the DOE, Richland Operations Office detailing efforts to identify alternative uses for the sodium metal stored on-site. The sodium has been declared excess and has been made available to potential users nationwide.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

No funding in 1994.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

On the assumption that this material is reclassified as waste, a General Plant Project will be needed to provide RCRA compliant, permitted storage space at the CWC. In addition to creating the storage space, the Hallam sodium metal inventory stored in five 16,000 gallon tanks must be recontainerized into 55 gallon drums. This recontainerization will require an Engineering study to identify an adequate location to perform this operation, procurement of equipment to liquify (heat) and transfer the sodium, preparation of Procedures and Safety Documentation, and the actual performance of this operation. It is anticipated that this recontainerization effort will commence during FY 1995 and continue into FY 1996.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Efforts to recontainerize the Hallam sodium will be continued from FY 1995. Upon completion of recontainerization, the approximately 620 55-gallon drums generated will be moved into the facilities provided by Project W-300. At this point, the Hallam sodium is now stored in a RCRA Compliant, permitted facility in accordance with state and federal laws.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Hallam sodium stored in Project W-300 facilities will remain in storage until either a buyer/use is identified, or means to provide sodium reaction to a non-hazardous waste form is available. Assuming means to provide

sodium reaction to a non-hazardous waste form is available, funding will be provided to facilitate this process.

DRIVERS AND IMPACTS INFORMATION

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Currently the metallic sodium is classified as material. If this sodium is classified as a waste the following would apply. The continued storage of radioactively contaminated metallic sodium is in violation of federal and state regulations. Seventy-five percent of the waste must be actively recycled or transferred to a different site for recycling each calendar year, otherwise the waste must be managed in accordance to the provisions of the RCRA.

Applicable Regulations Include:

40CFR 261.1(c)(8) - (Prohibition of speculative accumulation)
40CFR 262.34 - (Restriction on waste accumulation)
40CFR 264, Subpart B - (General facility standards)
40CFR 264, Subpart I - (Use and management of containers)

WAC 173-303-016(5)(d) - (Prohibition of speculative accumulation)
WAC 173-303-200 - (Restrictions on waste accumulation)
WAC 173-303-283 - (Performance standards for hazardous waste facilities)
WAC 173-303-340(1) - (Required emergency equipment)
WAC 173-303-395(1) - (Requirements for reactive wastes)
WAC 173-303-630(7) - (Containment systems for containers)
WAC 173-303-630(8) - (Requirements for container storage of radioactive waste)

DOE Order 5820.2A - (Radioactive waste management)

REGULATORY KEY ISSUES:

Currently stored metallic sodium is classified as material. When the material is declared waste, Hanford will be in immediate non-compliance with RCRA and WAC 173-303.

COMP/PROG BENEFITS AT PLANNING LEVEL:

If the metallic sodium inventory located at 2727-W and 2727-WA is reclassified as Resource Conservation and Recovery Act (RCRA) mixed waste in Fiscal Year 1994, this activity will provide the means by which the sodium inventory will be stored in a RCRA compliant manner awaiting a buyer/treatment.

CONCERNS AT PLANNING LEVEL:

At the Planning level, the storage of the existing sodium inventory is brought into compliance with RCRA and Washington Administrative Code (WAC)

regulations. However, the storage activity for Project W-300 is not completed until late FY 1996. If the sodium inventory is declared waste in FY 1994, then a compliance agreement will have to be entertained with the State of Washington for the period between when the sodium is declared waste and when it is moved into RCRA compliant storage provided by this activity.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development is required.

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INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: BF

SUBACTIVITY TITLE: TREATMENT, STORAGE, & DISPOSAL TECHNICAL SUPPORT

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
	182
TOTAL	182
DIRECT FTE	1

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	327	288		184	184	178	332	291	298
TOTAL	327	288	0	184	184	178	332	291	298
DIRECT FTE	2	2	0	1	1	1	2	2	2

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	327	320		203	203	209	415	323	330
TOTAL	327	320	0	203	203	209	415	323	330
DIRECT FTE	2	2	0	1	1	1	2	2	2

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

Radioactive waste is managed at the Hanford Site in accordance with applicable federal and state regulations, in particular U.S. Department of Energy (DOE) orders. DOE-RL Order 5820.2A (DOE 1990) is the principal order affecting solid radioactive wastes. Currently, LLW disposed of at the Hanford Site consists of Category 1 and Category 3 waste. The LLW is placed in below grade trenches and backfilled with soil.

Westinghouse Hanford Company (WHC) initially defined its own radioactive waste classifications of Category 1, Category 2, and Category 3 waste. Currently, the WHC waste classification system has only two waste classifications consisting of Category 1 and Category 3 waste. Definition of Category 1 and Category 3 waste is done using the concept that after 100 years, intrusion is acceptable in Category 1 waste; while 500 years must pass before intrusion is acceptable in Category 3 waste. In the Hanford Site 1990 waste volume projects, Category 2 and Category 3 wastes were grouped together as Category 3 waste. The classification definition is found in WHC-EP-0063. It is a Hanford Site Practice per WHC-EP-0063 that all Category 3 waste shall be stabilized. Current stabilization practice for Category 3 waste is to completely enclose it in an approved High-Integrity Container (HIC) prior to burial.

This activity provides for procurement support of High-Integrity Containers, maintenance of Category 3 Requirements input to WHC-EP-0063, 'Hanford Site Solid Waste Acceptance Criteria' document, and studies associated with the treatment requirements for Category 3 waste.

RELATED ACTIVITIES NARRATIVE:

This activity is related to the Central Waste Complex and other solid waste facilities within ADS #2200. Project W-174, 'Advanced LLW Disposal Facility' (ADS 2250-0-AE) provides a long term storage facility for disposal of Category 3 LLW. The Performance Acceptance effort is being managed by ADS 2200-0-AP.

KEY ASSUMPTIONS:

LLW will continue to be disposed on the Hanford Site. The waste generator shall implement a LLW certification program to ensure that the waste acceptance criteria for Category 3 waste is met.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

This activity is DOE-HQ Priority 2 and RL Priority A2.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Revision 4 of WHC-EP-0063, 'Hanford Site Solid Waste Acceptance Criteria', has been approved and issued. Full implementation of these requirements began on January 1, 1994. Support to Category 3 waste burial is ongoing. The Performance Assessment analysis funded under ADS 2200-0-AP is ongoing.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Development of Category 3 LLW disposal criteria will continue and the WHC-EP-0063 document will be maintained accordingly. Preparation of procurement documentation for the High-Integrity Containers will be performed. Support to burial of Category 3 waste will be provided. A PCB sampling plan will be finalized and prepared to support analytical sample analysis to be performed in FY 1995.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

Development of Category 3 LLW disposal criteria will continue and the WHC-EP-0063 document will be maintained accordingly. Procurement of the High-Integrity Containers will be supported. Support to burial of Category 3 waste will continue. Analytical sample analysis for characterization of PCB waste will be performed in FY 1995. A report of findings on PCB sample analysis will be generated.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Update of Category 3 LLW disposal criteria will continue and the WHC-EP-0063 document will be maintained accordingly. Support to burial of Category 3 waste will continue.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Update of Category 3 LLW disposal criteria will continue and the WHC-EP-0063 document will be maintained accordingly. Support to burial of Category 3 waste will continue.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Applicable Regulations Include:

DOE Order 5480.19 - Conduct of operations

DOE Order 5820.2A - Radioactive waste management

REGULATORY KEY ISSUES:

Performance Assessment analysis is needed to determine compliance requirements for disposal.

COMP/PROG BENEFITS AT PLANNING LEVEL:

Procurement of High-Integrity Containers for burial of Category 3 LLW is supported. The Hanford Site Solid Waste Acceptance Criteria document is maintained with respect to current requirements.

CONCERNS AT PLANNING LEVEL:

Funding of this activity is required to meet the needs of anticipated future Category 3 LLW disposal requirements. If this activity is unfunded, then Solid Waste Programs is at risk in regards to continued disposal of Category 3 LLW.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required.

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OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: BH

SUBACTIVITY TITLE: NDE/NDA NEWLY GENERATED WASTE

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	476	0		0	0	0	0	0	0
TOTAL	476	0	0	0	0	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	476	0		0	0	0	0	0	0
TOTAL	476	0	0	0	0	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This activity provides for the preparation and implementation to perform non-destructive examination (X-ray) and non-destructive assay services on newly generated waste. This activity supports the Central Waste Complex in the receipt of radioactive low level and mixed wastes.

RELATED ACTIVITIES NARRATIVE:

This activity supports the operation of the Central Waste Complex defined in subactivity 2200-00-AB.

KEY ASSUMPTIONS:

It is assumed that the base operating activities will be fully direct funded to the planning level for this activity.

If not fully direct funded, supplemental funding may be required from the chargeback/assessment program to accommodate the waste receipts activities expected.

ACTIVITY BY PRIORITY:

All activities funded by this TDD will be RL Priority A2, DOE-HQ Priority 2, to maintain compliant operations for waste management activities.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

NONE

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

This activity provides for the preparation and implementation to perform non-destructive examination (X-ray) and non-destructive assay services on newly generated waste and year end reporting of services performed. This activity supports the Central Waste Complex in the receipt of radioactive low level and mixed waste.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

See Outyears Task Narrative

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

See Outyears Task Narrative.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

This activity provides for the services to perform non-destructive examination (X-ray) and non-destructive assay of newly generated radioactive low level and mixed waste in support of the Central Waste Complex. Beginning in Fiscal Year 1995, this activity will be funded from the chargeback/assessment program.

DRIVERS AND IMPACTS INFORMATION

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Project activities are required to maintain compliance with State and Federal regulations for the storage of low-level and radioactive mixed waste.

Applicable Regulations Include:

40CFR 191.03(b) - (Radioactive waste storage)
40CFR 61.92 - (Control of radionuclide air emissions)
40CFR 264.17 - (Requirements for ignitable, reactive or incompatible waste)
40CFR 264.175(a-b) - (Containment)
40CFR 264.176 - (Special requirements for ignitable or reactive wastes)
40CFR 264.177(c) - (Special requirements for incompatible wastes)
40CFR 268.9(a) - (Need waste code)
40CFR 268.3(j)(1-2) - (Need test for corrosive and halogens)

WAC 173-303-141 - (Receive only designated wastes)
WAC 173-303-283(3) - (Performance standards)
WAC 173-303-300 - (Waste analysis)
WAC 173-303-310(2) - (Security)
WAC 173-303-320 - (Inspections)
WAC 173-303-330 - (Training)
WAC 173-303-340 - (Preparedness)
WAC 173-303-350 - (Contingencies)
WAC 173-303-355 - (SARA III)
WAC 173-303-370 - (Manifests)
WAC 173-303-380 - (Record Keeping)
WAC 173-303-390 - (Reporting)
WAC 173-303-395(1,2,4) - (Other general requirements)
WAC 173-303-400 - (Interim status standards)
WAC 173-303-630(2,5,7,8,9) - Use and management of containers)

55FR 22669-22670 - (Periodic verification analysis)

DOE Order 5400.3 - (Mixed waste program)
DOE Order 5480.19 - (Conduct of operations)
DOE Order 5820.2A - (Radioactive waste management)

REGULATORY KEY ISSUES:

Non-destructive verification and analysis provides quality assurance of waste classification consistent with current regulations.

COMP/PROG BENEFITS AT PLANNING LEVEL:

Planning level direct funding in Fiscal Year 1994 will maintain continuous safe operations in compliance with regulatory requirements. Beginning in Fiscal Year 1995, this activity will be funded from the

chargeback/assessment program.

CONCERNS AT PLANNING LEVEL:
None.

REQUIRED TECHNICAL DEVELOPMENT:
No technology development is required.

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: BJ

SUBACTIVITY TITLE: SOLID WASTE PROJECTION MODEL

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
TOTAL	608
DIRECT FTE	608
	5

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	937	910			608	608	596	575	666
TOTAL	937	910	0		608	608	596	575	666
DIRECT FTE	6	7	0		5	5	5	5	5

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	937	1013			676	676	719	717	738
TOTAL	937	1013	0		676	676	719	717	738
DIRECT FTE	6	7	0		5	5	5	5	5

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This activity provides for the continuing development and maintenance of the Solid Waste Projection Model (SWPM). The SWPM is a tool to continually evaluate the ever changing needs for Treatment, Storage and Disposal (TSD) of solid waste. It serves as a tool for planning purposes, with particular attention to planning for out-year operations and facility needs. The SWPM will also serve as a planning tool for when TSD facilities may be converted to other beneficial uses as the Hanford site is cleaned up. It is also used to develop data for routine reports directed by internal needs (e.g., capacity requirements for storage) as well as externally requested data (e.g., the Integrated Data Base (IDB) information sent to DOE/HQ).

Current SWPM information is limited to assessing, on a deterministic basis, the overall material movement through the TSD system using fixed assumptions. While deterministic calculations are sometimes satisfactory for initial assessments, a much more realistic assessment may be obtained using probabilistic techniques. Software has been developed that permits these refined calculations to be performed with relative ease. Future work on the SWPM will add details to the storage and treatment facilities in the model to permit probabilistic assessments of operations.

The current model addresses each unique waste stream treatment as having fixed upper limit capacities within the treatment facilities. In reality, the resources within the facility are more normally shared with several waste streams, with operations staffs determining priorities based on overall material flow concerns. The model will be upgraded from fixed capacities/stream to a shared capacity logic. This will result in an improved representation of the actual operations, and will show increased (simulated) throughput and a corresponding reduced need for storage.

The SWPM will further be used to routinely evaluate the TSD operations within the Solid Waste Department. Studies will be conducted whenever:

- There is a change in some input assumption (e.g., changing annual capacity of a resource)
- There is a change in the forecasted waste volumes (e.g., new annual forecasts)
- There is a request for information on alternatives (e.g., single versus multiple shift operations)
- There is a change in a regulation that impacts treatment (e.g., a new WIPP-WAC)
- There is a change in funding that impacts operation (e.g., delays in a facility startup date)

In addition to the development and maintenance of the SWPM, activities to support the Site Wide Systems Analysis are also provided under this ADS. The Site Wide Systems Analysis effort analyzes the existing Waste Management work scope and facilities (both existing and future), identifies any overlaps or deficiencies, and recommends actions to be taken to address the discrepancies if found.

RELATED ACTIVITIES NARRATIVE:

The Solid Waste Projection Model relies upon the Solid Waste Information and Tracking System (SWITS) (ADS 2200-0-AS) for a portion of the data used by the model.

KEY ASSUMPTIONS:

This activity assumes Hanford continues to receive, store, treat, and dispose of low level waste, transuranic waste, radioactive mixed waste, and hazardous waste, from both on and off-site sources.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through costs avoidance.

ACTIVITY BY PRIORITY:

This activity is DOE-HQ Priority 1 and RL Priority A2.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Development of the SWPM was initiated in 1988 to focus on predicting the transuranic (TRU) waste volumes to be shipped from Hanford to the Waste Isolation Pilot Plant (WIPP). Since its inception, emphasis of the SWPM has been expanded to encompass the entire Solid Waste Department TSD operation. In both Fiscal Years 1992 and 1993, major upgrades to the model were performed to reflect changing scope and operational methodology of Solid Waste Department planning.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Activities performed on the Solid Waste Projection Model (SWPM) will be to continue in the development and evaluation of the current working model. Development of the baseline model will be completed in FY 1994. This model will encompass the basic material routings for the entire Solid Waste Treatment, Storage, and Disposal system to a level equal to the current SWPM. Support to the Site Wide Systems Analysis will also be provided.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

Development activities will continue with the addition of facility specific details (throughputs, generation rates, etc.). As details on facilities internals are added to the model, it may be possible for the SWPM to replace the detailed operations simulations now used in developing the scope of the out-year facilities. This would result in reduced costs for planning the out-year facilities. Major SWPM development activities will conclude at the end of FY 1995. Continued support to the Site Wide Systems Analysis is provided.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Efforts involved in the SWPM will shift from a development mode to a maintenance mode in FY 1996. Efforts involved will be the required maintenance to the model, and the issuance of analysis reports used by the Solid Waste Department for other activities such as Functional Design Criteria preparation where predictive waste volume projections are beneficial. Minor modifications to the model will occur as facilities specific information evolves. Funding levels are not provided for major SWPM modifications. Continued support to the Site Wide Systems Analysis is provided.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Efforts involved will be the required maintenance to the model begun in FY 1996 will continue through the outyears. Minor modifications to the model will occur as facilities specific information evolves. Funding levels are not provided for major SWPM modifications. Continued support to the Site Wide Systems Analysis is provided.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Numerous regulations and other regulatory drivers apply to data management at TSD facilities.

DOE Order 5820.2A (Radioactive Waste Management)

DOE Order 5400.3 (Mixed Waste Program)

WAC 173-303-390 (Reporting)

WAC 173-303-180 (Manifesting)

WAC 173-303-210 (Recordkeeping)

WAC 173-303-370 (Manifest System)

WAC 173-303-380 (Facility Recordkeeping)

40 CFR 260-268

REGULATORY KEY ISSUES:

There are no regulatory issues at this time. When completely implemented, the SWPM will provide predictive waste volumes to be used within the Solid Waste Disposal (SWD) Division for negotiation of waste management milestones/ compliance agreements with the regulators.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The ability to accurately predict waste volume generation rates is prerequisite to the creation of design criteria concerning facility waste throughputs, understanding the impacts of decisions regarding the overall TSD program, and the knowledge of overall site storage needs. The continued creation of the SWPM will provide for a stronger systems engineering approach to management of site TSD activities.

CONCERNS AT PLANNING LEVEL:

Delays to the creation of the final SWPM will occur if not funded at the planning level. This will greatly impact the ability to predict future waste volume generation rates, and subsequently the ability to adequately plan future TSD activities.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development is required.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: BK

SUBACTIVITY TITLE: ENVIRONMENTAL PERMITTING AND CLOSURES

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
	728
TOTAL	728
DIRECT FTE	6

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	2241	1702	728		728	713	697	815	842
TOTAL	2241	1702	728	0	728	713	697	815	842
DIRECT FTE	9	9	6	0	6	6	6	6	6

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	2241	1895	809		809	840	871	904	933
TOTAL	2241	1895	809	0	809	840	871	904	933
DIRECT FTE	9	9	6	0	6	6	6	6	6

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This activity supports the submittal to regulatory agencies and subsequent approval of the Resource Conservation and Recovery Act (RCRA) Closure Plans and sampling activities for closure of Solid Waste Management treatment, storage, and disposal units. This includes negotiating resolution to Notice of Deficiencies (NOD) issued by the regulatory agencies and addressing comments received during the public review process. Facilities encompassed by this activity include TRUSAF, the Ashpit Demolition Site, the Hanford Patrol Academy Demolition Site, the 218-E-8 Borrow Pit, the Waste Receiving and Processing (WRAP) Facilities, the Central Waste Complex (CWC), and the 616 Non-Radioactive Dangerous Waste Storage Facility (NRDWSF).

RELATED ACTIVITIES NARRATIVE:

This activity is related to all solid waste activities requiring RCRA closure plans (ADSs #2200, 2220, and 2230). This activity is also related to Solid Waste Permitting (ADS 2200-0-AN) which prepares the permit applications, closure plans, and sampling activities for submittal to the regulatory agencies.

KEY ASSUMPTIONS:

This activity assumes the State/Environmental Protection Agency (EPA) will approve closure plans in FY94

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

This activity is a DOE-HQ Priority 2 and RL Priority B1

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

The 616 Non-Radioactive Dangerous Waste Storage Facility (NRDWSF) Dangerous Waste Part B Permit Application was submitted to the U.S. Department of Ecology (Ecology) and the EPA on July 31, 1989, meeting Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestone M-20-02. The LLBG Dangerous Waste Part B Permit Application was submitted to Ecology and the EPA on December 31, 1989, meeting Tri-Party Agreement milestone M-20-06. The CWC Radioactive Mixed Waste Storage Part B Permit

and the CWC-WRAP Part B Permit Applications were submitted on October 31, 1991, meeting the Tri-Party Agreement milestones M-20-05 and M-20-12. These Part B Permit Applications are in the NOD stage.

The TRUSAF Part B Permit Application was submitted by June 30, 1992. Resolution of NOD comments from the regulators will continue.

Three closure plans (218-E-8 Borrow Pit, 200W Ashpit Demolition Site, Hanford Patrol Academy Demolition Site) were submitted in November 1992.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Final activities required for resolution of NOD comments should result in approved closure plans for the 218-E-8 Borrow Pit, the 200W Ashpit Demolition Site, and the Hanford Patrol Academy Demolition Site. Closure Plan update will continue for TRUSAF, CWC, WRAP, and NRDWSF facilities. Support to ADS 2200-0-AN (Solid Waste Permitting) is provided in this activity for permit preparation and maintenance of the Solid Waste Division air permit strategy.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

Upon obtaining regulatory approval of closure plans for the 218-E-8 Borrow Pit, the 200W Ashpit Demolition Site, and the Hanford Patrol Academy Demolition Site; required closure activities (soil clean up, contamination surveys, etc.) will commence. Completion of closure activities for these three sites will occur in FY 1995. Closure Plan update will continue for TRUSAF, CWC, WRAP, and NRDWSF facilities. Support to ADS 2200-0-AN (Solid Waste Permitting) is provided in this activity for permit preparation and maintenance of the Solid Waste Division (SWD) air permit strategy. It is anticipated that permits will be revised and updated annually.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Closure Plan update will continue for TRUSAF, CWC, WRAP, and NRDWSF facilities. Support to ADS 2200-0-AN (Solid Waste Permitting) is provided in this activity for permit preparation and maintenance of the Solid Waste Division (SWD) air permit strategy. It is anticipated that permits will be revised and updated annually. Continue to resolve operating facilities closure plan comments and seek approval and final operating status from Ecology.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Support to ADS 2200-0-AN (Solid Waste Permitting) is provided in this activity for permit preparation and maintenance of the Solid Waste Division (SWD) air permit strategy. It is anticipated that permits will be revised and updated annually. Continue to resolve operating facilities closure plan comments and seek approval and final operating status from Ecology.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Applicable Regulations Include:

40CFR 264.110-120 - (Closure and post closure requirements)

40CFR 191.14 - (Assurance requirements)

40CFR 191.16 - (Groundwater protection requirements)

WAC 173-303-610(2) - (Closure performance standards)

WAC 173-303-610(4) - (Time allowed for closure [180 days after receiving last load in unit])

WAC 173-303-645(1) and (12) - (Releases from SMUs)

WAC 173-303-283 - (Performance standards), which prohibit degradation of groundwater or releases to the environment.

WAC 173-303-830(3ai) - Permit/closure plan alterations

REGULATORY KEY ISSUES:

State/EPA approval of closure plans remains an issue. Delays in approving the closure plans will cause delays in many Solid Waste activities including closure of the 218-E-8 Borrow Pit, the 200W Ashpit Demolition Site, and the Hanford Patrol Academy Demolition Site.

COMP/PROG BENEFITS AT PLANNING LEVEL:

Three site areas (218-E-8 Borrow Pit, 200W Ashpit Demolition Site, Hanford Patrol Academy Demolition Site) will be closed in accordance with the Environmental Restoration and Waste Management vision. Operating facility closure plans are maintained in accordance with Regulatory requirements.

CONCERNS AT PLANNING LEVEL:

Washington Department of Ecology approval of the closure plans for the 218-E-8 Borrow Pit, the 200W Ashpit Demolition Site, and the Hanford Patrol Academy Demolition Site will be received in FY94. Per WAC 173-303-610(4), closure activities must be completed within 180 days upon receipt of closure plan approval. Failure to provide FY 1995 funding for closure activities will result in a non-compliance with WAC 173-303-610(4) and potential fines to be levied by the State.

In addition, failure to fund closure plan upgrade efforts will result in a non-compliance with WAC 173-303-830(3ai) for providing alterations to existing permits and closure plans to maintain those permits/plans in an updated status. This non-compliance may also result in fines to be levied by the State.

REQUIRED TECHNICAL DEVELOPMENT:
No technology and development required.

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INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: BN

SUBACTIVITY TITLE: SODIUM PRIVITIZATION

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020	36	0	0		0	0	0	0	0
TOTAL	36	0	0	0	0	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020	36	1648		0	0	0	0	0	0
TOTAL	36	1648	0	0	0	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The purpose of this activity is to provide for privatization of metallic sodium treatment as prescribed in 40 Code of Federal Regulations (CFR) Parts 260-271, Department of Transportation 49 CFR 171-179 and Washington Administration Code (WAC) 173-303. Treatment provided by the private vendor will convert this metallic sodium into a non-hazardous waste form (dried sodium sulfate) suitable for disposal.

In 1967, 138 tons of radioactively contaminated metallic sodium in five 16,000-gallon containers (two full, one half full, two minimum heel) was received from the Hallam Nuclear Power Facility located in Hallam, Nebraska, and stored in the 2727-W Facility. This sodium had been used by the Hallam Nuclear Power Facility as their primary reactor coolant. In 1975, 25,850 kg (~ 6,720 gallons) of radioactive sodium in 158 55-gallon drums was received from Atomics International and stored at 2727-WA. This sodium had been used by Atomics International as primary coolant in their Sodium Reactor Experiment (SRE).

Originally this inventory of metallic sodium was to be converted into sodium hydroxide and then used at the Hanford Plutonium-Uranium Extraction (PUREX) Facility to neutralize liquid discharges to tank farms. However, the announcement from the U.S. Department of Energy (DOE) to permanently shut down PUREX operations results in an indeterminate delay in the use of converted sodium hydroxide. Potential alternate users of the converted sodium hydroxide, such as the Hanford B Plant and facilities at Savannah River Plant, were evaluated, but not found to be viable. In the event that no beneficial use is identified, the sodium will be declared waste and will be regulated by Washington State Dangerous Waste Regulations.

RELATED ACTIVITIES NARRATIVE:

Current efforts are underway to create storage space for the Hallam sodium through Project W-300, and the SRE sodium through Project W-312 (ADS 2200-0-BD). These projects will allow for storage of metallic sodium in a waste form awaiting treatment to a non-hazardous form suitable for burial.

The alternative activity to identification of a private vendor to react the metallic sodium will be through the process utilized by the DOE Fast Flux Test Facility (FFTF) sodium storage facility currently planned under ADS 6642-0. As in the privatization case, reacted metallic sodium will be returned to Solid Waste Programs for final disposal.

KEY ASSUMPTIONS:

This activity assumes that no beneficial use for the sodium will be identified. It further assumes that the sodium is currently classified as material, not waste; but will be reclassified as Resource Conservation and Recovery Act (RCRA) mixed waste in Fiscal Year 1994.

ACTIVITY BY PRIORITY:

Since the sodium has not been declared waste, its current stored form meets applicable DOE requirements. Therefore, all activities are RL Priority D1 and DOE-HQ Priority 3. However, in the event that the sodium is declared waste, all activities will become RL Priority A2 and DOE-HQ Priority 2.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

A monthly status letter was issued during 1992 to the DOE, Richland Operations Office detailing efforts to identify alternative uses for the sodium metal stored on-site. The sodium has been declared excess and has been made available to potential users nationwide. A Request For Proposal (RFP) has been generated, approved, and is in the procurement cycle for identification of a metallic sodium treatment contract.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

The Request For Proposal (RFP) will be sent out by Procurement with award of a Sodium Treatment Contract to a private firm by the end of FY 1994, based on planning case funding in FY 1995.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

At the planning level of funding, the containers of SRE sodium will be properly packaged, marked, and labeled by WHC to comply with Department of Transportation (DOT) regulations. A DOT waiver for shipment of the sodium in the Hallam tanks will be obtained by WHC. The private vendor will take possession of the sodium inventory, transport to a treatment facility, react the sodium to a dried sodium sulfate form, and return the sodium to WHC for final disposition/disposal.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

None. At the planning level, this activity would have been completed in FY 1995.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

None

DRIVERS AND IMPACTS INFORMATION

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Currently the metallic sodium is classed as material. If this sodium is classed as a waste the following would apply. The continued storage of radioactively contaminated metallic sodium is in violation of federal and state regulations. Seventy-five percent of the waste must be actively recycled or transferred to a different site for recycling each calendar year, otherwise the waste must be managed in accordance to the provisions of the RCRA.

Applicable Regulations Include:

40CFR 261.1(c)(8) - (Prohibition of speculative accumulation)
40CFR 262.34 - (Restriction on waste accumulation)
40CFR 264, Subpart I - (Use and management of containers)
49CFR 171-179 - (Department of Transportation Regulations)

WAC 173-303-016(5)(d) - (Prohibition of speculative accumulation)
WAC 173-303-200 - (Restrictions on waste accumulation)
WAC 173-303-395(1) - (Requirements for reactive wastes)
WAC 173-303-630(7) - (Containment systems for containers)
WAC 173-303-630(8) - (Requirements for container storage of radioactive waste)

DOE Order 5820.2A - (Radioactive waste management)

REGULATORY KEY ISSUES:

Currently stored metallic sodium is classed as material. When the material is declared waste, Hanford will be in immediate non-compliance with RCRA and WAC 173-303.

COMP/PROG BENEFITS AT PLANNING LEVEL:

If the metallic sodium inventory located at 2727-W and 2727-WA is reclassified as Resource Conservation and Recovery Act (RCRA) mixed waste in Fiscal Year 1994, this activity will provide the means by which the sodium inventory will be treated to a non-hazardous form suitable for disposal. Once this activity is complete, the sodium inventory will then be stored/disposed in a RCRA compliant manner.

CONCERNS AT PLANNING LEVEL:

At the Planning level, the storage/disposal of the existing sodium inventory is brought into compliance with RCRA and Washington Administrative Code (WAC) regulations. However, the treatment activity is not completed until late FY 1995. If the sodium inventory is declared waste in FY 1994, then a compliance agreement will have to be entertained with the State of Washington for the period between when the sodium is declared waste and when it is treated for disposal.

REQUIRED TECHNICAL DEVELOPMENT:
No technology development is required.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 1 SUBACTIVITY: AA

SUBACTIVITY TITLE: W-112 PHASE V STORAGE PROJECT INTEGRATION

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 94-D-411 TPC: 92600 TEC: 76400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
	313
TOTAL	313
DIRECT FTE	4

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	-461	278	366		366	349	203	227	0
TOTAL	-461	278	366	0	366	349	203	227	0
DIRECT FTE	0	3	4	0	4	4	2	2	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	-461	309	407		407	411	254	252	0
TOTAL	-461	309	407	0	407	411	254	252	0
DIRECT FTE	0	3	4	0	4	4	2	2	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The Hanford Solid Waste Management Program has established a long range strategy to ensure that management of solid waste at Hanford is environmentally sound and compliant with state and federal laws and U.S. Department of Energy directives. Part of this strategy is this project, W-112, which includes: (1) The construction of an interim/long-term storage and handling facility for approximately 27,000 drums equivalent to Radioactive Mixed Waste (RMW), Low-Level Waste (LLW), and Transuranic (TRU) waste awaiting treatment/disposal; (2) The Hanford Central Waste Support Complex (HCWSC), and (3) Infrastructure installation for the Central Waste Complex (CWC).

The Hanford Central Waste Support Complex will provide operations space, maintenance shop, and changeroom facilities for support of the Solid Waste Management, operations support services, maintenance, health physics technicians, engineering, and management all in support of Solid Waste Programs.

Installation of infrastructure will include the roads, utilities, and railroad to support all CWC Facilities. The Hanford Central Waste Complex (HCWC) will employ approximately 1,000 workers, thus greatly increasing vehicular traffic in this area. Activities it will support include the Waste Receiving and Processing (WRAP) Modules 1, 2A, and 2B, Enhanced Radioactive and Mixed Waste Storage Facility, and RMW storage. The HCWC will also support Waste Retrieval Phase 1, Waste Retrieval Phase 2, Alpha Caisson Retrieval, Sodium Storage, Remote-Handled Storage, Greater than Category 3 Storage, Waste Reduction and Reclamation, Burial Ground Closure, and other activities in and around the HCWC.

This Subactivity provides for project management for financial support and scheduling for Phase V Storage Facility, Project W-112 including the following activities: Baseline management, change control administration, Site Management System (SMS) implementation, project management plans, document control and records management, project engineering support, and the development and maintenance of integrated schedules. Interface with Solid Waste Programs, review activity data sheets, and support five year planning. Provide project engineering support including direction support to the Architect/Engineer (A/E). Prepare validation review packages, Energy System Acquisition Reviews and Key Decision approvals.

RELATED ACTIVITIES NARRATIVE:

This Project provides waste storage for the Waste Receiving and Processing (WRAP) Module 1 (ADS 2220-1), Phase 1 Retrieval (ADS 2200-2), WRAP Module 2A (ADS 2230-1), Phase 2 Retrieval (ADS 2250-0), and newly generated waste.

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this Subactivity reflects a productivity commitment which achieves the same workscope at a lower unit

rate, or the application of more efficient processes, or through cost avoidance. The funding profile assumes successful reprogramming efforts in FY 1994. This Subactivity assumes programmatic budget approval at required levels. The funding profile mandated in FY 1996 provides impacts to the project construction completion schedule. This Subactivity also assumes that the Waste Isolation Pilot Plant (WIPP) site is available to receive TRU wastes on schedule. Delays in the WIPP site will necessitate the construction of additional storage space at Hanford.

ACTIVITY BY PRIORITY:

RL Priority B1. HQ Priority 2,3,4,6. Hanford Site Priority 17.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Activities to date include engineering studies, DOE-HQ Key Decision 0, and Functional Design Criteria (FDC)/Conceptual Design Report (CDR) approvals. Engineering studies focused on automated -vs- manual material handling, waste volume projections, other facility interfaces, analysis of other similar facilities, and analysis of utility and support requirements. Other activities completed include initiation and completion of conceptual design reports, special studies, project validation, project plans, approval of justification of new start, implementation of change control system, and preparation for DOE-HQ approval of Key Decision 1.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
2200-01-0015	START DEFINITIVE DESIGN (W-112)	1/01/94	1/01/94

CURRENT YEAR (FY 1994) TASK NARRATIVE:

Complete architect/engineer selection and award.
 Revise multi-year integrated schedules.
 Complete budget planning for FY-1996.
 Start Definitive Design.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
2200-01-0030	ISSUE PSAR REVISION 0 (W-112)	1/31/95	6/30/95
2200-01-0025	START CONSTRUCTION (W-112)	1/31/95	6/30/95
2200-01-0020	COMPLETE DETAILED DESIGN (W-112)	4/28/95	6/30/95

BUDGET YEAR (FY 1995) TASK NARRATIVE:

Complete Definitive Design.
 Complete Preliminary Safety Analysis Report (PSAR).
 Start construction.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Continue construction and start-up activities.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
2200-01-0040	COMPLETE CONSTRUCTION (W-112)	4/30/97	12/31/98
2200-01-0035	ISSUE FSAR REVISION 0 (W-112)	10/31/97	7/31/99

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Completion of construction, FSAR, Part B Permit, start-up activities.
 Initiate operations.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Project activities are required to achieve and maintain compliance with State and Federal regulations for the storage of hazardous, LL-RMW and TRU-RMW.

New storage capacity is necessary to support operations of the WRAP and TRU waste retrieval in addition to off-site waste receipts. Violations of State and Federal storage requirements will also occur.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)
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40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)
40CFR 260 - (Hazardous Waste Management System)
40CFR 261 - (Identification and Listing of Hazardous Waste)
40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)
40CFR 264 - (Resource Conservation and Recovery Act (RCRA))
40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)
WAC 173-400 - (General Regulations for Air Pollution Sources)
WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

DOE Order 4700.1A - (Project Management System)
DOE Order 5400.1 - (General Environmental Protection Program)
DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)
DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)
DOE Order 5480.22 - (Technical Safety Requirements)
DOE Order 5480.23 - (Nuclear Safety Analysis Reports)
DOE Order 5480.24 - (Nuclear Criticality Safety)
DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)
DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)
DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS

CAA REGULATIONS

RCRA REGULATIONS

TSCA REGULATIONS

REGULATORY KEY ISSUES:

The availability of the WIPP site to receive TRU wastes remains an issue. If WIPP is not available, Hanford will need to construct additional RCRA compliant storage space.

Waste generation will exceed the current storage capacity in 1998 and additional storage buildings will be required to achieve compliance with RCRA and Washington Administrative Code storage requirements. The storage facility will provide the required radiological and hazardous waste containment which is appropriate for the waste inventories to be stored. These facilities would be part of the Solid Waste Operations Complex, a series of treatment/storage/disposal facilities to be located in the 200 West Area of the Hanford Reservation. This storage facility is an integral part of the waste management complex required to support implementation of required treatment and disposal practices for LL-RMW and TRU waste, including support to the WRAP Facilities.

COMP/PROG BENEFITS AT PLANNING LEVEL:

An office building and rail spur have been deleted from the scope of this project in the target case. The planning case provides funding for the rail spur and office building.

CONCERNS AT PLANNING LEVEL:

Adequate throughput through WRAP Module 1 and waste retrieval and storage in this facility is contingent on WIPP being available to receive TRU waste. Without the availability of WIPP, additional RCRA compliant storage capacity will be required.

In the target and decrement cases, the FY 1995 and FY 1996 funding constraints impact the project activities. Infrastructure upgrades will be phased to support storage (utility mains, primary roads). Office/Maintenance facility completion is delayed from FY 1996 until FY 1999. Manual storage will be phased to accommodate additional near term storage. Installation of automated systems will be delayed. This impact does carryover through the outyears of the project and will cause a total project completion slip of twenty (20) months. Due to the project completion delay, the project will incur an increase of \$1,400,000 in the total project costs due to escalation. The delay does not impact the availability of RCRA compliant storage in that the phased construction of storage buildings provides capacity on an as needed basis.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 1 SUBACTIVITY: AB

SUBACTIVITY TITLE: W-112 PHASE V STORAGE SYSTEMS ENGINEERING/ENVIRONMENTAL/SAF

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 94-D-411 TPC: 92600 TEC: 76400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
	301
TOTAL	301
DIRECT FTE	3

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	136	566	281			281	251	279	181
TOTAL	136	566	281	0		281	251	279	181
DIRECT FTE	0	5	3	0		3	3	3	1

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	136	630	313			313	296	348	201
TOTAL	136	630	313	0		313	296	348	201
DIRECT FTE	0	5	3	0		3	3	3	1

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The Hanford Solid Waste Management Program has established a long range strategy to ensure that management of solid waste at Hanford is environmentally sound and compliant with state and federal laws and U.S. Department of Energy directives. Part of this strategy is this project, W-112, which includes: (1) The construction of an interim/long-term storage and handling facility for approximately 27,000 drums equivalent to Radioactive Mixed Waste (RMW), Low-Level Waste (LLW), and Transuranic (TRU) waste awaiting treatment/disposal; (2) The Hanford Central Waste Support Complex (HCWSC), and (3) Infrastructure installation for the Central Waste Complex (CWC).

The Hanford Central Waste Support Complex will provide operations space, maintenance shop, and changeroom facilities for support of the Solid Waste Management, operations support services, maintenance, health physics technicians, engineering, and management all in support of Solid Waste Programs.

Installation of infrastructure will include the roads, utilities, and railroad to support all CWC Facilities. The Hanford Central Waste Complex (HCWC) will employ approximately 1,000 workers, thus greatly increasing vehicular traffic in this area. Activities it will support include the Waste Receiving and Processing (WRAP) Modules 1, 2A, and 2B, Enhanced Radioactive and Mixed Waste Storage Facility, and RMW storage. The HCWC will also support Waste Retrieval Phase 1, Waste Retrieval Phase 2, Alpha Caisson Retrieval, Sodium Storage, Remote-Handled Storage, Greater than Category 3 Storage, Waste Reduction and Reclamation, Burial Ground Closure, and other activities in and around the HCWC.

This Subactivity provides direction and coordination for preparation of required permits, NEPA, and safety documentation. Continue PSAR development and submit PSAR to DOE for review. Provide quality assurance, environmental, and safety overview of the project. Review project W-112 against WAC 173-303 and other applicable regulations.

RELATED ACTIVITIES NARRATIVE:

This Project provides waste storage for the Waste Receiving and Processing (WRAP) Module 1 (ADS 2220-1), Phase 1 Retrieval (ADS 2200-2), WRAP Module 2A (ADS 2230-1), Phase 2 Retrieval (ADS 2250-0), and newly generated waste.

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this Subactivity reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance. The funding profile assumes successful reprogramming efforts in FY 1994. This Subactivity assumes programmatic budget approval at required levels. The funding profile mandated in FY 1996 provides impacts to the project construction completion schedule. This Subactivity also assumes

that the Waste Isolation Pilot Plant (WIPP) site is available to receive TRU wastes on schedule. Delays in the WIPP site will necessitate the construction of additional storage space at Hanford.

ACTIVITY BY PRIORITY:

RL Priority B1. HQ Priority 2,3,4,6. Hanford Site Priority 17.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Activities to date include engineering studies, DOE-HQ Key Decision 0, and Functional Design Criteria (FDC)/Conceptual Design Report (CDR) approvals. Engineering studies focused on automated -vs- manual material handling, waste volume projections, other facility interfaces, analysis of other similar facilities, and analysis of utility and support requirements. Other activities completed include initiation and completion of conceptual design reports, special studies, project validation, project plans, approval of justification of new start, implementation of change control system, and preparation for DOE-HQ approval of Key Decision 1.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Restart PSAR.

Complete Preliminary Fire Hazards Analysis (PFHA).

Respond to comments on the RCRA Part B permit application.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

Complete PSAR.

Complete FHA.

Update the RCRA Part B permit to include definitive design.

Provide necessary air permit application.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Initiate FSAR.

Respond to comments on the RCRA Part B permit application.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Continue/complete construction, FSAR, Part B Permit, start-up, and initiate operations.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Project activities are required to achieve and maintain compliance with State and Federal regulations for the storage of hazardous, LL-RMW and TRU-RMW.

New storage capacity is necessary to support operations of the WRAP and TRU waste retrieval in addition to off-site waste receipts. Violations of State and Federal storage requirements will also occur.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)

40CFR 60 - (Standards of Performance for New Stationary Sources) 40CFR 61 - (Radiation Emission Standards)

40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)

40CFR 260 - (Hazardous Waste Management System)

40CFR 261 - (Identification and Listing of Hazardous Waste)

40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)

40CFR 264 - (Resource Conservation and Recovery Act (RCRA))

40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)

WAC 173-400 - (General Regulations for Air Pollution Sources)

WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

DOE Order 4700.1A - (Project Management System)

DOE Order 5400.1 - (General Environmental Protection Program)

DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)

DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)

DOE Order 5480.22 - (Technical Safety Requirements)

DOE Order 5480.23 - (Nuclear Safety Analysis Reports)

DOE Order 5480.24 - (Nuclear Criticality Safety)

DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)

DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)

DOE Order 5820.2A - (Radioactive Waste Management)

DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS

CAA REGULATIONS

RCRA REGULATIONS

TSCA REGULATIONS

REGULATORY KEY ISSUES:

The availability of the WIPP site to receive TRU wastes remains an issue. If WIPP is not available, Hanford will need to construct additional RCRA compliant storage space.

Waste generation will exceed the current storage capacity in 1998 and additional storage buildings will be required to achieve compliance with RCRA and Washington Administrative Code storage requirements. The storage facility will provide the required radiological and hazardous waste containment which is appropriate for the waste inventories to be stored. These facilities would be part of the Solid Waste Operations Complex, a series of treatment/storage/disposal facilities to be located in the 200 West Area of the Hanford Reservation. This storage facility is an integral part of the waste management complex required to support implementation of required treatment and disposal practices for LL-RMW and TRU waste, including support to the WRAP Facilities.

COMP/PROG BENEFITS AT PLANNING LEVEL:

An office building and rail spur have been deleted from the scope of this project in the target case. The planning case provides funding for the rail spur and office building.

CONCERNS AT PLANNING LEVEL:

Adequate throughput through WRAP Module 1 and waste retrieval and storage in this facility is contingent on WIPP being available to receive TRU waste. Without the availability of WIPP, additional RCRA compliant storage capacity will be required.

In the target and decrement cases, the FY 1995 and FY 1996 funding constraints impact the project activities. Infrastructure upgrades will be phased to support storage (utility mains, primary roads). Office/Maintenance facility completion is delayed from FY 1996 until FY 1999. Manual storage will be phased to accommodate additional near term storage. Installation of automated systems will be delayed. This impact does carryover through the outyears of the project and will cause a total project completion slip of twenty (20) months. Due to the project completion delay, the project will incur an increase of \$1,400,000 in the total project costs due to escalation. The delay does not impact the availability of RCRA compliant storage in that the phased construction of storage buildings provides capacity on an as needed basis.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 1 SUBACTIVITY: AC

SUBACTIVITY TITLE: W-112 PHASE V STORAGE STARTUP ACTIVITIES

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 94-D-411 TPC: 92600 TEC: 76400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
	628
TOTAL	628
DIRECT FTE	6

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	70	87	628		628	2718	685	299	0
CE 35EW31302	0	0		0	0	0	500	0	0
TOTAL	70	87	628	0	628	2718	1185	299	0
DIRECT FTE	1	1	6	0	6	20	5	2	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	70	97	698		698	3199	979	331	0
CE 35EW31302	0	0	0		0	0	500	0	0
TOTAL	70	97	698	0	698	3199	1479	331	0
DIRECT FTE	1	1	6	0	6	20	5	2	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The Hanford Solid Waste Management Program has established a long range strategy to ensure that management of solid waste at Hanford is environmentally sound and compliant with state and federal laws and U.S. Department of Energy directives. Part of this strategy is this project, W-112, which includes: (1) The construction of an interim/long-term storage and handling facility for approximately 27,000 drums equivalent to Radioactive Mixed Waste (RMW), Low-Level Waste (LLW), and Transuranic (TRU) waste awaiting treatment/disposal; (2) The Hanford Central Waste Support Complex (HCWSC), and (3) Infrastructure installation for the Central Waste Complex (CWC).

The Hanford Central Waste Support Complex will provide operations space, maintenance shop, and changeroom facilities for support of the Solid Waste Management, operations support services, maintenance, health physics technicians, engineering, and management all in support of Solid Waste Programs.

Installation of infrastructure will include the roads, utilities, and railroad to support all CWC Facilities. The Hanford Central Waste Complex (HCWC) will employ approximately 1,000 workers, thus greatly increasing vehicular traffic in this area. Activities it will support include the Waste Receiving and Processing (WRAP) Modules 1, 2A, and 2B, Enhanced Radioactive and Mixed Waste Storage Facility, and RMW storage. The HCWC will also support Waste Retrieval Phase 1, Waste Retrieval Phase 2, Alpha Caisson Retrieval, Sodium Storage, Remote-Handled Storage, Greater than Category 3 Storage, Waste Reduction and Reclamation, Burial Ground Closure, and other activities in and around the HCWC.

This Subactivity provides engineering direction and support to projects for CDR review, validation package preparation and design criteria revisions. Provide engineering studies as needed to support Phase V storage. Support preparation of the preliminary safety analysis report, NEPA documentation, and other design documents. Also included are start-up costs that are part of the project TPC. Integrate Project W-112 with the control and data integration team. Additionally, this Subactivity provides capital equipment not related to construction (CENRTC) for Phase V Storage. Equipment to be purchased includes: two scissor manlifts, two manual forklifts, and one spare Automated Guided Vehicle (AGV).

RELATED ACTIVITIES NARRATIVE:

This Project provides waste storage for the Waste Receiving and Processing (WRAP) Module 1 (ADS 2220-1), Phase 1 Retrieval (ADS 2200-2), WRAP Module 2A (ADS 2230-1), Phase 2 Retrieval (ADS 2250-0), and newly generated waste.

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this Subactivity reflects a productivity commitment which achieves the same workscope at a lower unit

rate, or the application of more efficient processes, or through cost avoidance. The funding profile assumes successful reprogramming efforts in FY 1994. This Subactivity assumes programmatic budget approval at required levels. The funding profile mandated in FY 1996 provides impacts to the project construction completion schedule. This Subactivity also assumes that the Waste Isolation Pilot Plant (WIPP) site is available to receive TRU wastes on schedule. Delays in the WIPP site will necessitate the construction of additional storage space at Hanford.

ACTIVITY BY PRIORITY:

RL Priority B1. HQ Priority 2,3,4,6. Hanford Site Priority 17.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Activities to date include engineering studies, DOE-HQ Key Decision 0, and Functional Design Criteria (FDC)/Conceptual Design Report (CDR) approvals. Engineering studies focused on automated -vs- manual material handling, waste volume projections, other facility interfaces, analysis of other similar facilities, and analysis of utility and support requirements. Other activities completed include initiation and completion of conceptual design reports, special studies, project validation, project plans, approval of justification of new start, implementation of change control system, and preparation for DOE-HQ approval of Key Decision 1.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

Issue Contamination Control Study Letter Report.

Issue Specs for Drum Inspection Equipment.

FY 1995 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Develop start-up strategy and identify operational readiness review requirements.

^G Initiate activities to support start-up.

FY 1996 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Continue start-up activities, including procedure development, training, and preparation for readiness review.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Continuation and completion of construction, FSAR, RCRA Part B Permit, start-up activities, and operation.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Project activities are required to achieve and maintain compliance with State and Federal regulations for the storage of hazardous, LL-RMW and TRU-RMW.

New storage capacity is necessary to support operations of the WRAP and TRU waste retrieval in addition to off-site waste receipts. Violations of State and Federal storage requirements will also occur.

Specific regulations in addition to others required are:

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DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)
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DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS

CAA REGULATIONS

RCRA REGULATIONS

TSCA REGULATIONS

REGULATORY KEY ISSUES:

The availability of the WIPP site to receive TRU wastes remains an issue. If WIPP is not available, Hanford will need to construct additional RCRA compliant storage space.

Waste generation will exceed the current storage capacity in 1998 and additional storage buildings will be required to achieve compliance with RCRA and Washington Administrative Code storage requirements. The storage facility will provide the required radiological and hazardous waste containment which is appropriate for the waste inventories to be stored. These facilities would be part of the Solid Waste Operations Complex, a series of treatment/storage/disposal facilities to be located in the 200 West Area of the Hanford Reservation. This storage facility is an integral part of the waste management complex required to support implementation of required treatment and disposal practices for LL-RMW and TRU waste, including support to the WRAP Facilities.

COMP/PROG BENEFITS AT PLANNING LEVEL:

An office building and rail spur have been deleted from the scope of this project in the target case. The planning case provides funding for the rail spur and office building.

CONCERNS AT PLANNING LEVEL:

Adequate throughput through WRAP Module 1 and waste retrieval and storage in this facility is contingent on WIPP being available to receive TRU waste. Without the availability of WIPP, additional RCRA compliant storage capacity will be required.

In the target and decrement cases, the FY 1995 and FY 1996 funding constraints impact the project activities. Infrastructure upgrades will be phased to support storage (utility mains, primary roads). Office/Maintenance facility completion is delayed from FY 1996 until FY 1999. Manual storage will be phased to accommodate additional near term storage. Installation of automated systems will be delayed. This impact does carryover through the outyears of the project and will cause a total project completion slip of twenty (20) months. Due to the project completion delay, the project will incur an increase of \$1,400,000 in the total project costs due to escalation. The delay does not impact the availability of RCRA compliant storage in that the phased construction of storage buildings provides capacity on an as needed basis.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 1 SUBACTIVITY: AD

SUBACTIVITY TITLE: W-112 PHASE V STORAGE CDR/ACDR

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 94-D-411 TPC: 92600 TEC: 76400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020	248	0	0		0	0	0	0	0
TOTAL	248	0	0	0	0	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020	248	0	0		0	0	0	0	0
TOTAL	248	0	0	0	0	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The Hanford Solid Waste Management Program has established a long range strategy to ensure that management of solid waste at Hanford is environmentally sound and compliant with state and federal laws and U.S. Department of Energy directives. Part of this strategy is this project, W-112, which includes: (1) The construction of an interim/long-term storage and handling facility for approximately 27,000 drums equivalent to Radioactive Mixed Waste (RMW), Low-Level Waste (LLW), and Transuranic (TRU) waste awaiting treatment/disposal; (2) The Hanford Central Waste Support Complex (HCWSC), and (3) Infrastructure installation for the Central Waste Complex (CWC).

The Hanford Central Waste Support Complex will provide operations space, maintenance shop, and changeroom facilities for support of the Solid Waste Management, operations support services, maintenance, health physics technicians, engineering, and management all in support of Solid Waste Programs.

Installation of infrastructure will include the roads, utilities, and railroad to support all CWC Facilities. The Hanford Central Waste Complex (HCWC) will employ approximately 1,000 workers, thus greatly increasing vehicular traffic in this area. Activities it will support include the Waste Receiving and Processing (WRAP) Modules 1, 2A, and 2B, Enhanced Radioactive and Mixed Waste Storage Facility, and RMW storage. The HCWC will also support Waste Retrieval Phase 1, Waste Retrieval Phase 2, Alpha Caisson Retrieval, Sodium Storage, Remote-Handled Storage, Greater than Category 3 Storage, Waste Reduction and Reclamation, Burial Ground Closure, and other activities in and around the HCWC.

This Subactivity provides for preparation and review of the Advanced Conceptual Design for the W-112 facility. The ACDR scope includes preparation of the following studies: Automated Guided Vehicles, Automated Inspection, Control Systems, Site Plan Grading and Automated Material Handling.

RELATED ACTIVITIES NARRATIVE:

This Project provides waste storage for the Waste Receiving and Processing (WRAP) Module 1 (ADS 2220-1), Phase 1 Retrieval (ADS 2200-2), WRAP Module 2A (ADS 2230-1), Phase 2 Retrieval (ADS 2250-0), and newly generated waste.

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this Subactivity reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance. The funding profile assumes successful reprogramming efforts in FY 1994. This Subactivity assumes programmatic budget approval at required levels. The funding profile mandated in FY 1996 provides impacts to the project construction completion schedule. This Subactivity also assumes

that the Waste Isolation Pilot Plant (WIPP) site is available to receive TRU wastes on schedule. Delays in the WIPP site will necessitate the construction of additional storage space at Hanford.

ACTIVITY BY PRIORITY:

RL Priority B1. HQ Priority 2,3,4,6. Hanford Site Priority 17.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Activities to date include engineering studies, DOE-HQ Key Decision 0, and Functional Design Criteria (FDC)/Conceptual Design Report (CDR) approvals. Engineering studies focused on automated -vs- manual material handling, waste volume projections, other facility interfaces, analysis of other similar facilities, and analysis of utility and support requirements. Other activities completed include initiation and completion of conceptual design reports, special studies, project validation, project plans, approval of justification of new start, implementation of change control system, and preparation for DOE-HQ approval of Key Decision 1.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

Complete ACDR

Complete Conceptual Studies of Building Materials

FY 1995 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

No funding required.

FY 1996 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

No funding required.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

No funding required.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Project activities are required to achieve and maintain compliance with State and Federal regulations for the storage of hazardous, LL-RMW and TRU-RMW.

New storage capacity is necessary to support operations of the WRAP and TRU waste retrieval in addition to off-site waste receipts. Violations of State and Federal storage requirements will also occur.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)

40CFR 60 - (Standards of Performance for New Stationary Sources) 40CFR 61 - (Radiation Emission Standards)

40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)

40CFR 260 - (Hazardous Waste Management System)

40CFR 261 - (Identification and Listing of Hazardous Waste)

40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)

40CFR 264 - (Resource Conservation and Recovery Act (RCRA))

40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)

WAC 173-400 - (General Regulations for Air Pollution Sources)

WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

DOE Order 4700.1A - (Project Management System)

DOE Order 5400.1 - (General Environmental Protection Program)

DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)

DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)

DOE Order 5480.22 - (Technical Safety Requirements)

DOE Order 5480.23 - (Nuclear Safety Analysis Reports)

DOE Order 5480.24 - (Nuclear Criticality Safety)

DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)

DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)

DOE Order 5820.2A - (Radioactive Waste Management)

DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS

CAA REGULATIONS

RCRA REGULATIONS

TSCA REGULATIONS

REGULATORY KEY ISSUES:

The availability of the WIPP site to receive TRU wastes remains an issue. If WIPP is not available, Hanford will need to construct additional RCRA compliant storage space.

Waste generation will exceed the current storage capacity in 1998 and additional storage buildings will be required to achieve compliance with RCRA and Washington Administrative Code storage requirements. The storage facility will provide the required radiological and hazardous waste containment which is appropriate for the waste inventories to be stored. These facilities would be part of the Solid Waste Operations Complex, a series of treatment/storage/disposal facilities to be located in the 200 West Area of the Hanford Reservation. This storage facility is an integral part of the waste management complex required to support implementation of required treatment and disposal practices for LL-RMW and TRU waste, including support to the WRAP Facilities.

COMP/PROG BENEFITS AT PLANNING LEVEL:

An office building and rail spur have been deleted from the scope of this project in the target case. The planning case provides funding for the rail spur and office building.

CONCERNS AT PLANNING LEVEL:

Adequate throughput through WRAP Module 1 and waste retrieval and storage in this facility is contingent on WIPP being available to receive TRU waste. Without the availability of WIPP, additional RCRA compliant storage capacity will be required.

In the target and decrement cases, the FY 1995 and FY 1996 funding constraints impact the project activities. Infrastructure upgrades will be phased to support storage (utility mains, primary roads). Office/Maintenance facility completion is delayed from FY 1996 until FY 1999. Manual storage will be phased to accommodate additional near term storage. Installation of automated systems will be delayed. This impact does carryover through the outyears of the project and will cause a total project completion slip of twenty (20) months. Due to the project completion delay, the project will incur an increase of \$1,400,000 in the total project costs due to escalation. The delay does not impact the availability of RCRA compliant storage in that the phased construction of storage buildings provides capacity on an as needed basis.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required.

E-T010

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 1 SUBACTIVITY: AE

SUBACTIVITY TITLE: W-112 PHASE V STORAGE EQUIPMENT DEVELOPMENT AND TESTING

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 94-D-411 TPC: 92600 TEC: 76400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996 TOTAL
OE EW3130020		219
TOTAL		219
DIRECT FTE		1

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	7	41	219		219	265	252	0	0
TOTAL	7	41	219	0	219	265	252	0	0
DIRECT FTE	0	0	1	0	1	2	1	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	7	46	244		244	312	315	0	0
TOTAL	7	46	244	0	244	312	315	0	0
DIRECT FTE	0	0	1	0	1	2	1	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The Hanford Solid Waste Management Program has established a long range strategy to ensure that management of solid waste at Hanford is environmentally sound and compliant with state and federal laws and U.S. Department of Energy directives. Part of this strategy is this project, W-112, which includes: (1) The construction of an interim/long-term storage and handling facility for approximately 27,000 drums equivalent to Radioactive Mixed Waste (RMW), Low-Level Waste (LLW), and Transuranic (TRU) waste awaiting treatment/disposal; (2) The Hanford Central Waste Support Complex (HCWSC), and (3) Infrastructure installation for the Central Waste Complex (CWC).

The Hanford Central Waste Support Complex will provide operations space, maintenance shop, and changeroom facilities for support of the Solid Waste Management, operations support services, maintenance, health physics technicians, engineering, and management all in support of Solid Waste Programs.

Installation of infrastructure will include the roads, utilities, and railroad to support all CWC Facilities. The Hanford Central Waste Complex (HCWC) will employ approximately 1,000 workers, thus greatly increasing vehicular traffic in this area. Activities it will support include the Waste Receiving and Processing (WRAP) Modules 1, 2A, and 2B, Enhanced Radioactive and Mixed Waste Storage Facility, and RMW storage. The HCWC will also support Waste Retrieval Phase 1, Waste Retrieval Phase 2, Alpha Caisson Retrieval, Sodium Storage, Remote-Handled Storage, Greater than Category 3 Storage, Waste Reduction and Reclamation, Burial Ground Closure, and other activities in and around the HCWC.

This Subactivity provides for review and support of equipment development and testing for Project W-112. Provide direction to the project Architect/Engineer (A/E) on interface requirements and mechanical equipment development. Complete technical review of automated equipment.

RELATED ACTIVITIES NARRATIVE:

This Project provides waste storage for the Waste Receiving and Processing (WRAP) Module 1 (ADS 2220-1), Phase 1 Retrieval (ADS 2200-2), WRAP Module 2A (ADS 2230-1), Phase 2 Retrieval (ADS 2250-0), and newly generated waste.

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this Subactivity reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance. The funding profile assumes successful reprogramming efforts in FY 1994. This Subactivity assumes programmatic budget approval at required levels. The funding profile mandated in FY 1996 provides impacts to the project construction completion schedule. This Subactivity also assumes that the Waste Isolation Pilot Plant (WIPP) site is available to receive

TRU wastes on schedule. Delays in the WIPP site will necessitate the construction of additional storage space at Hanford.

ACTIVITY BY PRIORITY:

RL Priority B1. HQ Priority 2,3,4,6. Hanford Site Priority 17.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Activities to date include engineering studies, DOE-HQ Key Decision 0, and Functional Design Criteria (FDC)/Conceptual Design Report (CDR) approvals. Engineering studies focused on automated -vs- manual material handling, waste volume projections, other facility interfaces, analysis of other similar facilities, and analysis of utility and support requirements. Other activities completed include initiation and completion of conceptual design reports, special studies, project validation, project plans, approval of justification of new start, implementation of change control system, and preparation for DOE-HQ approval of Key Decision 1.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Complete head gas sampling evaluation/report.
Complete containment pallet testing/issue report.
Complete revisions to Supplemental Design Requirements Document (SDRD)/incorporate Title I Design information.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

Provide technical support to Definitive Design in the area of equipment selection and testing.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Provide technical support to acceptance testing of equipment.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Continue to provide technical support through construction completion and start-up of the facility.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Project activities are required to achieve and maintain compliance with State and Federal regulations for the storage of hazardous, LL-RMW and TRU-RMW.

New storage capacity is necessary to support operations of the WRAP and TRU waste retrieval in addition to off-site waste receipts. Violations of State and Federal storage requirements will also occur.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)
40CFR 60 - (Standards of Performance for New Stationary Sources) 40CFR 61 - (Radiation Emission Standards)
40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)
40CFR 260 - (Hazardous Waste Management System)
40CFR 261 - (Identification and Listing of Hazardous Waste)
40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)
40CFR 264 - (Resource Conservation and Recovery Act (RCRA))
40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)
WAC 173-400 - (General Regulations for Air Pollution Sources)
WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

DOE Order 4700.1A - (Project Management System)
DOE Order 5400.1 - (General Environmental Protection Program)
DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)
DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)
DOE Order 5480.22 - (Technical Safety Requirements)
DOE Order 5480.23 - (Nuclear Safety Analysis Reports)
DOE Order 5480.24 - (Nuclear Criticality Safety)
DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)
DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)
DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS

CAA REGULATIONS
RCRA REGULATIONS
TSCA REGULATIONS

REGULATORY KEY ISSUES:

The availability of the WIPP site to receive TRU wastes remains an issue. If WIPP is not available, Hanford will need to construct additional RCRA compliant storage space.

Waste generation will exceed the current storage capacity in 1998 and additional storage buildings will be required to achieve compliance with RCRA and Washington Administrative Code storage requirements. The storage facility will provide the required radiological and hazardous waste containment which is appropriate for the waste inventories to be stored. These facilities would be part of the Solid Waste Operations Complex, a series of treatment/storage/disposal facilities to be located in the 200 West Area of the Hanford Reservation. This storage facility is an integral part of the waste management complex required to support implementation of required treatment and disposal practices for LL-RMW and TRU waste, including support to the WRAP Facilities.

COMP/PROG BENEFITS AT PLANNING LEVEL:

An office building and rail spur have been deleted from the scope of this project in the target case. The planning case provides funding for the rail spur and office building.

CONCERNS AT PLANNING LEVEL:

Adequate throughput through WRAP Module 1 and waste retrieval and storage in this facility is contingent on WIPP being available to receive TRU waste. Without the availability of WIPP, additional RCRA compliant storage capacity will be required.

In the target and decrement cases, the FY 1995 and FY 1996 funding constraints impact the project activities. Infrastructure upgrades will be phased to support storage (utility mains, primary roads). Office/Maintenance facility completion is delayed from FY 1996 until FY 1999. Manual storage will be phased to accommodate additional near term storage. Installation of automated systems will be delayed. This impact does carryover through the outyears of the project and will cause a total project completion slip of twenty (20) months. Due to the project completion delay, the project will incur an increase of \$1,400,000 in the total project costs due to escalation. The delay does not impact the availability of RCRA compliant storage in that the phased construction of storage buildings provides capacity on an as needed basis.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 1 SUBACTIVITY: AF

SUBACTIVITY TITLE: W-112 PHASE V STORAGE OPERATIONS

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 94-D-411 TPC: 92600 TEC: 76400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

B&R	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020	0	0	0		0	0	0	5032	6013
TOTAL	0	0	0	0	0	0	0	5032	6013
DIRECT FTE	0	0	0	0	0	0	0	31	32

PLANNING CASE (\$ IN THOUSANDS)

B&R	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020	0	0	0		0	0	0	5584	6667
TOTAL	0	0	0	0	0	0	0	5584	6667
DIRECT FTE	0	0	0	0	0	0	0	31	32

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The Hanford Solid Waste Management Program has established a long range strategy to ensure that management of solid waste at Hanford is environmentally sound and compliant with state and federal laws and U.S. Department of Energy directives. Part of this strategy is this project, W-112, which includes: (1) The construction of an interim/long-term storage and handling facility for approximately 27,000 drums equivalent to Radioactive Mixed Waste (RMW), Low-Level Waste (LLW), and Transuranic (TRU) waste awaiting treatment/disposal; (2) The Hanford Central Waste Support Complex (HCWSC), and (3) Infrastructure installation for the Central Waste Complex (CWC).

The Hanford Central Waste Support Complex will provide operations space, maintenance shop, and changeroom facilities for support of the Solid Waste Management, operations support services, maintenance, health physics technicians, engineering, and management all in support of Solid Waste Programs.

Installation of infrastructure will include the roads, utilities, and railroad to support all CWC Facilities. The Hanford Central Waste Complex (HCWC) will employ approximately 1,000 workers, thus greatly increasing vehicular traffic in this area. Activities it will support include the Waste Receiving and Processing (WRAP) Modules 1, 2A, and 2B, Enhanced Radioactive and Mixed Waste Storage Facility, and RMW storage. The HCWC will also support Waste Retrieval Phase 1, Waste Retrieval Phase 2, Alpha Caisson Retrieval, Sodium Storage, Remote-Handled Storage, Greater than Category 3 Storage, Waste Reduction and Reclamation, Burial Ground Closure, and other activities in and around the HCWC.

This Subactivity supports the technical and support work necessary to start-up and operate Phase V Enhanced RMW Storage Buildings. The activities that support start-up include preparation of plans (start-up, emergency response, facility effluent monitoring, maintenance, training, etc.), procedure development (operating, maintenance, training, administrative, etc.). Funding for operations begins in FY 1998. These start-up and operations costs are not included as part of the Total Project Costs.

RELATED ACTIVITIES NARRATIVE:

This Project provides waste storage for the Waste Receiving and Processing (WRAP) Module 1 (ADS 2220-1), Phase 1 Retrieval (ADS 2200-2), WRAP Module 2A (ADS 2230-1), Phase 2 Retrieval (ADS 2250-0), and newly generated waste.

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this Subactivity reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance. The funding profile assumes successful reprogramming efforts in

FY 1994. This Subactivity assumes programmatic budget approval at required levels. The funding profile mandated in FY 1996 provides impacts to the project construction completion schedule. This Subactivity also assumes that the Waste Isolation Pilot Plant (WIPP) site is available to receive TRU wastes on schedule. Delays in the WIPP site will necessitate the construction of additional storage space at Hanford.

ACTIVITY BY PRIORITY:

RL Priority B1. HQ Priority 2,3,4,6. Hanford Site Priority 17.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

^G No support provided to date.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G No support provided in FY 1994.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Establish the organizations for the operations and readiness review process for Phase V Storage. Revise start-up plans and initiate readiness review activities.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Continue to staff-up for readiness review and plant operations. Initiate preparation of operating, test procedures, various operating and administrative procedures, readiness review documentation, etc.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Plant start-up activities will be completed to meet the proposed construction completion date for Phase V Storage in FY 1998. Preparation of operating procedures, operator training, operability testing, readiness reviews, and other required compliance reviews will be accomplished in FY 1998-1999.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Operations of storage facilities is necessary to maintain compliance with State and Federal regulations for the storage of hazardous, low level and mixed waste.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)

40CFR 60 - (Standards of Performance for New Stationary Sources) 40CFR 61 - (Radiation Emission Standards)

40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)

40CFR 260 - (Hazardous Waste Management System)

40CFR 261 - (Identification and Listing of Hazardous Waste)

40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)

40CFR 264 - (Resource Conservation and Recovery Act (RCRA))

40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)

WAC 173-400 - (General Regulations for Air Pollution Sources)

WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

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DOE Order 5400.1 - (General Environmental Protection Program)

DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)

DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)

DOE Order 5480.22 - (Technical Safety Requirements)

DOE Order 5480.23 - (Nuclear Safety Analysis Reports)

DOE Order 5480.24 - (Nuclear Criticality Safety)

DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)

DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)

DOE Order 5820.2A - (Radioactive Waste Management)

DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS

CAA REGULATIONS

RCRA REGULATIONS

TSCA REGULATIONS

REGULATORY KEY ISSUES:

The availability of the WIPP site to receive TRU wastes remains an issue.

If WIPP is not available, Hanford will need to construct additional RCRA compliant storage space.

Waste generation will exceed the current storage capacity in 1998 and additional storage buildings will be required to achieve compliance with RCRA and Washington Administrative Code storage requirements. The storage facility will provide the required radiological and hazardous waste containment which is appropriate for the waste inventories to be stored. These facilities would be part of the Solid Waste Operations Complex, a series of treatment/storage/disposal facilities to be located in the 200 West Area of the Hanford Reservation. This storage facility is an integral part of the waste management complex required to support implementation of required treatment and disposal practices for LL-RMW and TRU waste, including support to the WRAP Facilities.

COMP/PROG BENEFITS AT PLANNING LEVEL:

An office building and rail spur have been deleted from the scope of this project in the target case. The planning case provides funding for the rail spur and office building.

CONCERNS AT PLANNING LEVEL:

Adequate throughput through WRAP Module 1 and waste retrieval and storage in this facility is contingent on WIPP being available to receive TRU waste. Without the availability of WIPP, additional RCRA compliant storage capacity will be required.

In the target and decrement cases, the FY 1995 and FY 1996 funding constraints impact the project activities. Infrastructure upgrades will be phased to support storage (utility mains, primary roads). Office/Maintenance facility completion is delayed from FY 1996 until FY 1999. Manual storage will be phased to accommodate additional near term storage. Installation of automated systems will be delayed. This impact does carryover through the outyears of the project and will cause a total project completion slip of twenty (20) months. Due to the project completion delay, the project will incur an increase of \$1,400,000 in the total project costs due to escalation. The delay does not impact the availability of RCRA compliant storage in that the phased construction of storage buildings provides capacity on an as needed basis.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 1 SUBACTIVITY: AG

SUBACTIVITY TITLE: W-112 PHASE V STORAGE DEFINITIVE DESIGN

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 94-D-411 TPC: 92600 TEC: 76400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

		FY1996
B&R		TOTAL
LI 39EW31302		716
TOTAL		716
DIRECT FTE		0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
LI 39EW31302	0	2094			716	716	251	241	450
TOTAL	0	2094	0		716	716	251	241	450
DIRECT FTE	0	0	0		0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
LI 39EW31302	0	2325	794		0	794	294	301	496
TOTAL	0	2325	794		0	794	294	301	496
DIRECT FTE	0	0	0		0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The Hanford Solid Waste Management Program has established a long range strategy to ensure that management of solid waste at Hanford is environmentally sound and compliant with state and federal laws and U.S. Department of Energy directives. Part of this strategy is this project, W-112, which includes: (1) The construction of an interim/long-term storage and handling facility for approximately 27,000 drums equivalent to Radioactive Mixed Waste (RMW), Low-Level Waste (LLW), and Transuranic (TRU) waste awaiting treatment/disposal; (2) The Hanford Central Waste Support Complex (HCWSC), and (3) Infrastructure installation for the Central Waste Complex (CWC).

The Hanford Central Waste Support Complex will provide operations space, maintenance shop, and changeroom facilities for support of the Solid Waste Management, operations support services, maintenance, health physics technicians, engineering, and management all in support of Solid Waste Programs.

Installation of infrastructure will include the roads, utilities, and railroad to support all CWC Facilities. The Hanford Central Waste Complex (HCWC) will employ approximately 1,000 workers, thus greatly increasing vehicular traffic in this area. Activities it will support include the Waste Receiving and Processing (WRAP) Modules 1, 2A, and 2B, Enhanced Radioactive and Mixed Waste Storage Facility, and RMW storage. The HCWC will also support Waste Retrieval Phase 1, Waste Retrieval Phase 2, Alpha Caisson Retrieval, Sodium Storage, Remote-Handled Storage, Greater than Category 3 Storage, Waste Reduction and Reclamation, Burial Ground Closure, and other activities in and around the HCWC.

This Subactivity provides for an off-site Architect/Engineer (A/E) to prepare the Preliminary Design (Title I) for Phase V Storage (Project W-112) to include: Work Plan, Project Management Plan, and Preliminary Design Report.

This Subactivity also provides for preparation of the Detailed Design (Title II) in three parts:

- (1) Phase V is the storage and material handling support to WRAP 1. The storage building will be design/construct, and the procurement specification will be prepared by the on-site A/E. The material handling building will be design by the off-site A/E. It will include shipping/receiving, automated system, transfer corridor, headgas sampling stations, and a dedicated administrative area.
- (2) Hanford Central Waste Support Complex will include three design/construct buildings; one maintenance building and two office buildings. The on-site A/E will prepare the procurement specifications for the buildings.
- (3) Infrastructure will be designed by the on-site A/E, and will include water lines, telecommunication ducts, roads, underground electrical raceways, and sewage disposal.

This Subactivity also includes Engineering/Inspection (Title III) activities to be performed during construction.

RELATED ACTIVITIES NARRATIVE:

This Project provides waste storage for the Waste Receiving and Processing (WRAP) Module 1 (ADS 2220-1), Phase 1 Retrieval (ADS 2200-2), WRAP Module 2A (ADS 2230-1), Phase 2 Retrieval (ADS 2250-0), and newly generated waste.

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this Subactivity reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance. The funding profile assumes successful reprogramming efforts in FY 1994. This Subactivity assumes programmatic budget approval at required levels. The funding profile mandated in FY 1996 provides impacts to the project construction completion schedule. This Subactivity also assumes that the Waste Isolation Pilot Plant (WIPP) site is available to receive TRU wastes on schedule. Delays in the WIPP site will necessitate the construction of additional storage space at Hanford.

ACTIVITY BY PRIORITY:

RL Priority B1. HQ Priority 2,3,4,6. Hanford Site Priority 17.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

^G No funding to date.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G Award of Key Decision 1 from DOE-HQ to commence Title I Design. Award of Contract to off-site A/E for preparation of Title I Design. Initiation and completion of Title I Design. Initiation of Title II Design.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Complete Title II Design. Initiate Title III activities along with the commencement of construction.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Continue Title III activities.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Continue Title III activities through FY97.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Project activities are required to achieve and maintain compliance with State and Federal regulations for the storage of hazardous, LL-RMW and TRU-RMW.

New storage capacity is necessary to support operations of the WRAP and TRU waste retrieval in addition to off-site waste receipts. Violations of State and Federal storage requirements will also occur.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)

40CFR 60 - (Standards of Performance for New Stationary Sources) 40CFR 61 - (Radiation Emission Standards)

40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)

40CFR 260 - (Hazardous Waste Management System)

40CFR 261 - (Identification and Listing of Hazardous Waste)

40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)

40CFR 264 - (Resource Conservation and Recovery Act (RCRA))

40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)

WAC 173-400 - (General Regulations for Air Pollution Sources)

WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

DOE Order 4700.1A - (Project Management System)

DOE Order 5400.1 - (General Environmental Protection Program)

DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)

DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)

DOE Order 5480.22 - (Technical Safety Requirements)

DOE Order 5480.23 - (Nuclear Safety Analysis Reports)

DOE Order 5480.24 - (Nuclear Criticality Safety)

DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)

DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)

DOE Order 5820.2A - (Radioactive Waste Management)

DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS

CAA REGULATIONS

RCRA REGULATIONS

TSCA REGULATIONS

REGULATORY KEY ISSUES:

The availability of the WIPP site to receive TRU wastes remains an issue. If WIPP is not available, Hanford will need to construct additional RCRA compliant storage space.

Waste generation will exceed the current storage capacity in 1998 and additional storage buildings will be required to achieve compliance with RCRA and Washington Administrative Code storage requirements. The storage facility will provide the required radiological and hazardous waste containment which is appropriate for the waste inventories to be stored. These facilities would be part of the Solid Waste Operations Complex, a series of treatment/storage/disposal facilities to be located in the 200 West Area of the Hanford Reservation. This storage facility is an integral part of the waste management complex required to support implementation of required treatment and disposal practices for LL-RMW and TRU waste, including support to the WRAP Facilities.

COMP/PROG BENEFITS AT PLANNING LEVEL:

An office building and rail spur have been deleted from the scope of this project in the target case. The planning case provides funding for the rail spur and office building.

CONCERNS AT PLANNING LEVEL:

Adequate throughput through WRAP Module 1 and waste retrieval and storage in this facility is contingent on WIPP being available to receive TRU waste. Without the availability of WIPP, additional RCRA compliant storage capacity will be required.

In the target and decrement cases, the FY 1995 and FY 1996 funding constraints impact the project activities. Infrastructure upgrades will be phased to support storage (utility mains, primary roads). Office/Maintenance facility completion is delayed from FY 1996 until FY 1999. Manual storage will be phased to accommodate additional near term storage. Installation of automated systems will be delayed. This impact does carryover through the outyears of the project and will cause a total project completion slip of twenty (20) months. Due to the project completion delay, the project will incur an increase of \$1,400,000 in the total project costs due to escalation. The delay does not impact the availability of RCRA compliant storage in that the phased construction of storage buildings provides capacity on an as needed basis.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required.

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 1 SUBACTIVITY: AH

SUBACTIVITY TITLE: W-112 PHASE V STORAGE CONSTRUCTION

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 94-D-411 TPC: 92600 TEC: 76400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
LI 39EW31302		TOTAL
TOTAL		4492
DIRECT FTE		4492
		0

TARGET CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL	BUD	LEGAL	ESH	TOTAL			
LI 39EW31302		0	14659			4492	4492	10077	12227	9609
TOTAL		0	14659	0		4492	4492	10077	12227	9609
DIRECT FTE		0	0	0		0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL	BUD	LEGAL	ESH	TOTAL			
LI 39EW31302		0	16277	4983			4983	17240	11757	7784
TOTAL		0	16277	4983	0		4983	17240	11757	7784
DIRECT FTE		0	0	0	0		0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The Hanford Solid Waste Management Program has established a long range strategy to ensure that management of solid waste at Hanford is environmentally sound and compliant with state and federal laws and U.S. Department of Energy directives. Part of this strategy is this project, W-112, which includes: (1) The construction of an interim/long-term storage and handling facility for approximately 27,000 drums equivalent to Radioactive Mixed Waste (RMW), Low-Level Waste (LLW), and Transuranic (TRU) waste awaiting treatment/disposal; (2) The Hanford Central Waste Support Complex (HCWSC), and (3) Infrastructure installation for the Central Waste Complex (CWC).

The Hanford Central Waste Support Complex will provide operations space, maintenance shop, and changeroom facilities for support of the Solid Waste Management, operations support services, maintenance, health physics technicians, engineering, and management all in support of Solid Waste Programs.

Installation of infrastructure will include the roads, utilities, and railroad to support all CWC Facilities. The Hanford Central Waste Complex (HCWC) will employ approximately 1,000 workers, thus greatly increasing vehicular traffic in this area. Activities it will support include the Waste Receiving and Processing (WRAP) Modules 1, 2A, and 2B, Enhanced Radioactive and Mixed Waste Storage Facility, and RMW storage. The HCWC will also support Waste Retrieval Phase 1, Waste Retrieval Phase 2, Alpha Caisson Retrieval, Sodium Storage, Remote-Handled Storage, Greater than Category 3 Storage, Waste Reduction and Reclamation, Burial Ground Closure, and other activities in and around the HCWC.

This Subactivity provides for procurement contracts for the automated stacker retriever system, the automated guided vehicles, and the automated inspection system.

RELATED ACTIVITIES NARRATIVE:

This Project provides waste storage for the Waste Receiving and Processing (WRAP) Module 1 (ADS 2220-1), Phase 1 Retrieval (ADS 2200-2), WRAP Module 2A (ADS 2230-1), Phase 2 Retrieval (ADS 2250-0), and newly generated waste.

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this Subactivity reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance. The funding profile assumes successful reprogramming efforts in FY 1994. This Subactivity assumes programmatic budget approval at required levels. The funding profile mandated in FY 1996 provides impacts to the project construction completion schedule. This Subactivity also assumes that the Waste Isolation Pilot Plant (WIPP) site is available to receive TRU wastes on schedule. Delays in the WIPP site will necessitate the

construction of additional storage space at Hanford.

ACTIVITY BY PRIORITY:

RL Priority B1. HQ Priority 2,3,4,6. Hanford Site Priority 17.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

^G No funding to date.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G No funding to date.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Initiation of procurement contracts for automated stacker retriever system, automated guided vehicles, and automated inspection system.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Continue procurement activities.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Continue procurement activities through the first quarter of FY 1997.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Project activities are required to achieve and maintain compliance with State and Federal regulations for the storage of hazardous, LL-RMW and TRU-RMW.

New storage capacity is necessary to support operations of the WRAP and TRU waste retrieval in addition to off-site waste receipts. Violations of State and Federal storage requirements will also occur.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)
40CFR 60 - (Standards of Performance for New Stationary Sources) 40CFR 61 - (Radiation Emission Standards)
40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)
40CFR 260 - (Hazardous Waste Management System)
40CFR 261 - (Identification and Listing of Hazardous Waste)
40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)
40CFR 264 - (Resource Conservation and Recovery Act (RCRA))
40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)
WAC 173-400 - (General Regulations for Air Pollution Sources)
WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

DOE Order 4700.1A - (Project Management System)
DOE Order 5400.1 - (General Environmental Protection Program)
DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)
DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)
DOE Order 5480.22 - (Technical Safety Requirements)
DOE Order 5480.23 - (Nuclear Safety Analysis Reports)
DOE Order 5480.24 - (Nuclear Criticality Safety)
DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)
DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)
DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS

CAA REGULATIONS

RCRA REGULATIONS

TSCA REGULATIONS

REGULATORY KEY ISSUES:

The availability of the WIPP site to receive TRU wastes remains an issue. If WIPP is not available, Hanford will need to construct additional RCRA compliant storage space.

Waste generation will exceed the current storage capacity in 1998 and additional storage buildings will be required to achieve compliance with RCRA and Washington Administrative Code storage requirements. The storage facility will provide the required radiological and hazardous waste containment which is appropriate for the waste inventories to be stored. These facilities would be part of the Solid Waste Operations Complex, a series of treatment/storage/disposal facilities to be located in the 200 West Area of the Hanford Reservation. This storage facility is an integral part of the waste management complex required to support implementation of required treatment and disposal practices for LL-RMW and TRU waste, including support to the WRAP Facilities.

COMP/PROG BENEFITS AT PLANNING LEVEL:

An office building and rail spur have been deleted from the scope of this project in the target case. The planning case provides funding for the rail spur and office building.

CONCERNS AT PLANNING LEVEL:

Adequate throughput through WRAP Module 1 and waste retrieval and storage in this facility is contingent on WIPP being available to receive TRU waste. Without the availability of WIPP, additional RCRA compliant storage capacity will be required.

In the target and decrement cases, the FY 1995 and FY 1996 funding constraints impact the project activities. Infrastructure upgrades will be phased to support storage (utility mains, primary roads). Office/Maintenance facility completion is delayed from FY 1996 until FY 1999. Manual storage will be phased to accommodate additional near term storage. Installation of automated systems will be delayed. This impact does carryover through the outyears of the project and will cause a total project completion slip of twenty (20) months. Due to the project completion delay, the project will incur an increase of \$1,400,000 in the total project costs due to escalation. The delay does not impact the availability of RCRA compliant storage in that the phased construction of storage buildings provides capacity on an as needed basis.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 1 SUBACTIVITY: AI

SUBACTIVITY TITLE: W-112 PHASE V STORAGE PROCUREMENT

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 94-D-411 TPC: 92600 TEC: 76400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

		FY1996
B&R		TOTAL
LI 39EW31302		958
TOTAL		958
DIRECT FTE		0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
LI 39EW31302	0	1427			958	958	2468	1580	977
TOTAL	0	1427	0		958	958	2468	1580	977
DIRECT FTE	0	0	0		0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
LI 39EW31302	0	1584	1062			1062	2900	1972	1075
TOTAL	0	1584	1062	0		1062	2900	1972	1075
DIRECT FTE	0	0	0	0		0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The Hanford Solid Waste Management Program has established a long range strategy to ensure that management of solid waste at Hanford is environmentally sound and compliant with state and federal laws and U.S. Department of Energy directives. Part of this strategy is this project, W-112, which includes: (1) The construction of an interim/long-term storage and handling facility for approximately 27,000 drums equivalent to Radioactive Mixed Waste (RMW), Low-Level Waste (LLW), and Transuranic (TRU) waste awaiting treatment/disposal; (2) The Hanford Central Waste Support Complex (HCWSC), and (3) Infrastructure installation for the Central Waste Complex (CWC).

The Hanford Central Waste Support Complex will provide operations space, maintenance shop, and changeroom facilities for support of the Solid Waste Management, operations support services, maintenance, health physics technicians, engineering, and management all in support of Solid Waste Programs.

Installation of infrastructure will include the roads, utilities, and railroad to support all CWC Facilities. The Hanford Central Waste Complex (HCWC) will employ approximately 1,000 workers, thus greatly increasing vehicular traffic in this area. Activities it will support include the Waste Receiving and Processing (WRAP) Modules 1, 2A, and 2B, Enhanced Radioactive and Mixed Waste Storage Facility, and RMW storage. The HCWC will also support Waste Retrieval Phase 1, Waste Retrieval Phase 2, Alpha Caisson Retrieval, Sodium Storage, Remote-Handled Storage, Greater than Category 3 Storage, Waste Reduction and Reclamation, Burial Ground Closure, and other activities in and around the HCWC.

This Subactivity provides for initiation of construction via fixed price contracts for Storage and Material Handling Buildings, Infrastructure Upgrades, and Operations Support/Maintenance Buildings.

RELATED ACTIVITIES NARRATIVE:

This Project provides waste storage for the Waste Receiving and Processing (WRAP) Module 1 (ADS 2220-1), Phase 1 Retrieval (ADS 2200-2), WRAP Module 2A (ADS 2230-1), Phase 2 Retrieval (ADS 2250-0), and newly generated waste.

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this Subactivity reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance. The funding profile assumes successful reprogramming efforts in FY 1994. This Subactivity assumes programmatic budget approval at required levels. The funding profile mandated in FY 1996 provides impacts to the project construction completion schedule. This Subactivity also assumes that the Waste Isolation Pilot Plant (WIPP) site is available to receive TRU wastes on schedule. Delays in the WIPP site will necessitate the

construction of additional storage space at Hanford.

ACTIVITY BY PRIORITY:

RL Priority B1. HQ Priority 2,3,4,6. Hanford Site Priority 17.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

^G No funding to date.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G No funding to date.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Initiation of construction via fixed price contracts for Storage and Material Handling Buildings, Infrastructure Upgrades, and Operations Support/Maintenance Buildings.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Continue construction activities.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Continue construction activities through third quarter FY 1997.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Project activities are required to achieve and maintain compliance with State and Federal regulations for the storage of hazardous, LL-RMW and TRU-RMW.

New storage capacity is necessary to support operations of the WRAP and TRU waste retrieval in addition to off-site waste receipts. Violations of State and Federal storage requirements will also occur.

Specific regulations in addition to others required are:

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WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

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DOE Order 5400.1 - (General Environmental Protection Program)

DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)

DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)

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DOE Order 5480.23 - (Nuclear Safety Analysis Reports)

DOE Order 5480.24 - (Nuclear Criticality Safety)

DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)

DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)

DOE Order 5820.2A - (Radioactive Waste Management)

DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS

CAA REGULATIONS

RCRA REGULATIONS

TSCA REGULATIONS

REGULATORY KEY ISSUES:

The availability of the WIPP site to receive TRU wastes remains an issue. If WIPP is not available, Hanford will need to construct additional RCRA compliant storage space.

Waste generation will exceed the current storage capacity in 1998 and additional storage buildings will be required to achieve compliance with RCRA and Washington Administrative Code storage requirements. The storage facility will provide the required radiological and hazardous waste containment which is appropriate for the waste inventories to be stored. These facilities would be part of the Solid Waste Operations Complex, a series of treatment/storage/disposal facilities to be located in the 200 West Area of the Hanford Reservation. This storage facility is an integral part of the waste management complex required to support implementation of required treatment and disposal practices for LL-RMW and TRU waste, including support to the WRAP Facilities.

COMP/PROG BENEFITS AT PLANNING LEVEL:

An office building and rail spur have been deleted from the scope of this project in the target case. The planning case provides funding for the rail spur and office building.

CONCERNS AT PLANNING LEVEL:

Adequate throughput through WRAP Module 1 and waste retrieval and storage in this facility is contingent on WIPP being available to receive TRU waste. Without the availability of WIPP, additional RCRA compliant storage capacity will be required.

In the target and decrement cases, the FY 1995 and FY 1996 funding constraints impact the project activities. Infrastructure upgrades will be phased to support storage (utility mains, primary roads). Office/Maintenance facility completion is delayed from FY 1996 until FY 1999. Manual storage will be phased to accommodate additional near term storage. Installation of automated systems will be delayed. This impact does carryover through the outyears of the project and will cause a total project completion slip of twenty (20) months. Due to the project completion delay, the project will incur an increase of \$1,400,000 in the total project costs due to escalation. The delay does not impact the availability of RCRA compliant storage in that the phased construction of storage buildings provides capacity on an as needed basis.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 1 SUBACTIVITY: AJ

SUBACTIVITY TITLE: W-112 PHASE V STORAGE PROJECT MANAGEMENT

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 94-D-411 TPC: 92600 TEC: 76400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
LI 39EW31302		TOTAL
		451
TOTAL		451
DIRECT FTE		0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL	BUD	LEGAL	ESH	TOTAL			
LI 39EW31302	0	450			451	451	255	246	180
TOTAL	0	450	0		451	451	255	246	180
DIRECT FTE	0	0	0		0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL	BUD	LEGAL	ESH	TOTAL			
LI 39EW31302	0	500	500			500	300	307	198
TOTAL	0	500	500	0		500	300	307	198
DIRECT FTE	0	0	0	0		0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The Hanford Solid Waste Management Program has established a long range strategy to ensure that management of solid waste at Hanford is environmentally sound and compliant with state and federal laws and U.S. Department of Energy directives. Part of this strategy is this project, W-112, which includes: (1) The construction of an interim/long-term storage and handling facility for approximately 27,000 drums equivalent to Radioactive Mixed Waste (RMW), Low-Level Waste (LLW), and Transuranic (TRU) waste awaiting treatment/disposal; (2) The Hanford Central Waste Support Complex (HCWSC), and (3) Infrastructure installation for the Central Waste Complex (CWC).

The Hanford Central Waste Support Complex will provide operations space, maintenance shop, and changeroom facilities for support of the Solid Waste Management, operations support services, maintenance, health physics technicians, engineering, and management all in support of Solid Waste Programs.

Installation of infrastructure will include the roads, utilities, and railroad to support all CWC Facilities. The Hanford Central Waste Complex (HCWC) will employ approximately 1,000 workers, thus greatly increasing vehicular traffic in this area. Activities it will support include the Waste Receiving and Processing (WRAP) Modules 1, 2A, and 2B, Enhanced Radioactive and Mixed Waste Storage Facility, and RMW storage. The HCWC will also support Waste Retrieval Phase 1, Waste Retrieval Phase 2, Alpha Caisson Retrieval, Sodium Storage, Remote-Handled Storage, Greater than Category 3 Storage, Waste Reduction and Reclamation, Burial Ground Closure, and other activities in and around the HCWC.

This Subactivity provides for project management support to facilitate project interface with the Architect/Engineer (A/E), Construction Management, and the DOE.

RELATED ACTIVITIES NARRATIVE:

This Project provides waste storage for the Waste Receiving and Processing (WRAP) Module 1 (ADS 2220-1), Phase 1 Retrieval (ADS 2200-2), WRAP Module 2A (ADS 2230-1), Phase 2 Retrieval (ADS 2250-0), and newly generated waste.

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this Subactivity reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance. The funding profile assumes successful reprogramming efforts in FY 1994. This Subactivity assumes programmatic budget approval at required levels. The funding profile mandated in FY 1996 provides impacts to the project construction completion schedule. This Subactivity also assumes that the Waste Isolation Pilot Plant (WIPP) site is available to receive TRU wastes on schedule. Delays in the WIPP site will necessitate the

construction of additional storage space at Hanford.

ACTIVITY BY PRIORITY:

RL Priority B1. HQ Priority 2,3,4,6. Hanford Site Priority 17.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

^G No funding to date.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G Provide project management support.

FY 1995 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Provide project management support.

FY 1996 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Provide project management support.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Provide project management support.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Project activities are required to achieve and maintain compliance with State and Federal regulations for the storage of hazardous, LL-RMW and TRU-RMW.

New storage capacity is necessary to support operations of the WRAP and TRU waste retrieval in addition to off-site waste receipts. Violations of State and Federal storage requirements will also occur.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)
40CFR 60 - (Standards of Performance for New Stationary Sources) 40CFR 61 - (Radiation Emission Standards)
40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)
40CFR 260 - (Hazardous Waste Management System)
40CFR 261 - (Identification and Listing of Hazardous Waste)
40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)
40CFR 264 - (Resource Conservation and Recovery Act (RCRA))
40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)
WAC 173-400 - (General Regulations for Air Pollution Sources)
WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

DOE Order 4700.1A - (Project Management System)
DOE Order 5400.1 - (General Environmental Protection Program)
DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)
DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)
DOE Order 5480.22 - (Technical Safety Requirements)
DOE Order 5480.23 - (Nuclear Safety Analysis Reports)
DOE Order 5480.24 - (Nuclear Criticality Safety)
DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)
DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)
DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS

CAA REGULATIONS

RCRA REGULATIONS

TSCA REGULATIONS

REGULATORY KEY ISSUES:

The availability of the WIPP site to receive TRU wastes remains an issue. If WIPP is not available, Hanford will need to construct additional RCRA compliant storage space.

Waste generation will exceed the current storage capacity in 1998 and additional storage buildings will be required to achieve compliance with RCRA and Washington Administrative Code storage requirements. The storage facility will provide the required radiological and hazardous waste containment which is appropriate for the waste inventories to be stored. These facilities would be part of the Solid Waste Operations Complex, a series of treatment/storage/disposal facilities to be located in the 200 West Area of the Hanford Reservation. This storage facility is an integral part of the waste management complex required to support implementation of required treatment and disposal practices for LL-RMW and TRU waste, including support to the WRAP Facilities.

COMP/PROG BENEFITS AT PLANNING LEVEL:

An office building and rail spur have been deleted from the scope of this project in the target case. The planning case provides funding for the rail spur and office building.

CONCERNS AT PLANNING LEVEL:

Adequate throughput through WRAP Module 1 and waste retrieval and storage in this facility is contingent on WIPP being available to receive TRU waste. Without the availability of WIPP, additional RCRA compliant storage capacity will be required.

In the target and decrement cases, the FY 1995 and FY 1996 funding constraints impact the project activities. Infrastructure upgrades will be phased to support storage (utility mains, primary roads). Office/Maintenance facility completion is delayed from FY 1996 until FY 1999. Manual storage will be phased to accommodate additional near term storage. Installation of automated systems will be delayed. This impact does carryover through the outyears of the project and will cause a total project completion slip of twenty (20) months. Due to the project completion delay, the project will incur an increase of \$1,400,000 in the total project costs due to escalation. The delay does not impact the availability of RCRA compliant storage in that the phased construction of storage buildings provides capacity on an as needed basis.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required.

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 2 SUBACTIVITY: AA

SUBACTIVITY TITLE: W-113 PHASE 1 RETRIEVAL PROJECT INTEGRATION

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 94-D-411 TPC: 46900 TEC: 28400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
	199
TOTAL	199
DIRECT FTE	2

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	287	391			295	295	141	405	0
TOTAL	287	391	0		295	295	141	405	0
DIRECT FTE	2	2	0		2	2	1	4	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	287	435			329	329	341	330	0
TOTAL	287	435	0		329	329	341	330	0
DIRECT FTE	2	2	0		2	2	2	2	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This project supports design, construction and start-up of a facility that will be used to retrieve suspect Transuranic (TRU) waste from the storage trenches. Preliminary studies have been conducted on approaches to be taken in retrieval of waste from 25 trenches at the Hanford Site. Existing records have been analyzed for information as to the quantity and description of the various waste packages. A phased approach to address the retrieval has been selected as having a high probability of success in meeting both the short term needs to support the Waste Receiving and Processing (WRAP) Facility Module 1 (ADS 2220-01) feedstream requirements as well as recognizing the uncertainty of the condition of some of the buried waste. The Record of Decision (ROD) for the Hanford Defense Waste-Environmental Impact Statement (HDW-EIS) approves waste retrieval as the preferred alternative.

Phase 1 Retrieval is the Subproject that provides the retrieval capability as part of the Solid Waste Operations Complex (SWOC) MSA for retrieval, storage and treatment. Phase 1 Retrieval, Project W-113, is directed toward 1 of 25 trenches in which TRU waste is stored, where there is a high probability of retrieving and handling waste packages that are intact and without risk of contamination spread. The selected trench stores 10,000 suspect TRU containers. The trench contains drums, metal, plywood, and fiberglass reinforced plywood boxes. Retrieval of this trench requires approximately 6 years of retrieval operation. The Phase 2 Retrieval Facility, Project W-221 (ADS 2250-00), will address the remaining trenches where some waste containers are expected to be breached.

This Subactivity provides project management for financial support and scheduling for Phase 1 Retrieval, including the following activities: baseline management, change control administration, SMS implementation, project management plans, document control and record management, project engineering support, and the development and maintenance of integrated scheduled. Interface with Solid Waste Programs, review activity data sheets, and support five year planning. Provide project engineering support including direction/support to the Architect/Engineer (A/E). Prepare validation review packages, Energy System Acquisition Reviews and obtain Key Decision approvals. Initiate preparation of the project management plan and provide input to revising the activity data sheets.

RELATED ACTIVITIES NARRATIVE:

This Project is related to Waste Receiving and Processing (WRAP) Facility Module 1, (Project W-026), (ADS 2220-1).

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this ADS reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

Retrieval of waste is required by DOE Orders, and the ROD for the HDW-EIS on waste operations. Retrieval operations must be started, conducted, and completed in a timely manner that will support the operations in the WRAP Facility and avoid further contamination of the environment. The Waste Isolation Pilot Plant (WIPP) current schedules demand the retrievably stored TRU waste be processed and shipped by the end of Calendar Year (CY) 2018 and WRAP construction and operation schedules are keyed towards that processing rate.

ACTIVITY BY PRIORITY:

RL Priority A1. HQ Priority 2, 3, 4, 6. Hanford Site Priority 17. Retrieval of TRU waste in the Burial Grounds is required to prevent breached containers from contaminating the environment. 'The Burial Ground warrants priority management attention to avoid unnecessary increases in worker radiation exposure and cost during cleanup,' as stated in the DOE-HQ Spent Fuel Working Group Report, Volume 1, November 1993.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

FY 1992 workscope completed to date included the FDC revision, PSE revision, and the completion of a Conceptual Design Report (CDR) to validate design costs. This includes submittal of the construction project data sheets.

FY 1993 work included initiation of the Advanced Conceptual Design Report, development of an Supplemental Design Requirements Document (SDRD), conducting a value engineering, preparing a quality assurance plan, initiation of start-up activities, initiating the PSAR, and submittal of the Project Plan.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
2200-02-0025	COMMENCE DEFINITIVE DESIGN OF W-113	1/01/94	1/01/94

CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G In FY 1994, the ADCR will be completed. Key Decision 1 will be awarded. The design contractor will be selected and with contract award, the Preliminary Design (Title I) will commence. The NEPA permitting will be initiated and work on the PSAR will continue. The prototype Container Venting System (CVS) equipment will be designed and tested. The Draft Operational Strategy Plan will be issued. Establishment of the organizations for the operations and readiness review process, revision of the start-up plans and initiation of readiness review activities. The SDRD will be maintained. Key Decision 2 will be awarded and Detailed Design (Title II) will commence.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
2200-02-0035	COMPLETE DETAILED DESIGN OF W-113	6/30/95	6/30/95
2200-02-0030	START W-113 CONSTRUCTION	7/31/95	7/31/95

BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Complete Definitive Design.
 ^G Provide Key Decision 3 presentation to RL.
 ^G Complete preparation of project data sheets.
 ^G Revise multi-year integrated schedule.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Commence construction and procurement activities.
 ^G Complete preparation of project data sheets.
 ^G Revise multi-year integrated schedule.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
2200-02-0040	COMPLETE W-113 CONSTRUCTION	2/28/97	2/28/97
2200-02-0045	INITIATE W-113 RETRIEVAL OPERATIONS	4/15/98	4/15/98

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Continue construction and procurement activities.
 ^G Complete preparation of project data sheets.
 ^G Revise multi-year integrated schedule.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The HDW-EIS ROD commits the U.S. Department of Energy to retrieval of TRU waste. This action is an integral part of the Tri-Party Agreement milestone M-18-00.

The degradation of these waste containers will continue to occur if they are not removed. The waste packages outer structural containment is continually exposed to a humid environment which will cause eventual structural failure. Delaying the retrieval of waste from these conditions can cause additional retrieval costs (breached container retrieval will cost significantly more than retrieval of intact waste packages). Also to be considered is the environmental impact of releasing radioactive and hazardous material to the biosphere. WRAP will be designed and constructed to process the waste for eventual disposal in local sites low level waste or low level mixed waste (LLW or LLMW) or at WIPP (TRU).

WRAP processing schedules are keyed toward obtaining feedstocks at a rate that matches the WIPP delivery requirements (complete shipments by CY 2018), concurrence with minimizing the facility costs that are processing rate dependent. If retrieval is delayed, the processing rate through WRAP will be significantly slowed with acceleration beyond the design basis when retrieval starts.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)
40CFR 60 - (Standards of Performance for New Stationary Sources) 40CFR 61 - (Radiation Emission Standards)
40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)
40CFR 260 - (Hazardous Waste Management System)
40CFR 261 - (Identification and Listing of Hazardous Waste)
40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)
40CFR 264 - (Resource Conservation and Recovery Act (RCRA))
40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)
WAC 173-400 - (General Regulations for Air Pollution Sources)
WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

DOE Order 4700.1A - (Project Management System)
DOE Order 5400.1 - (General Environmental Protection Program)
DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)
DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)
DOE Order 5480.22 - (Technical Safety Requirements)
DOE Order 5480.23 - (Nuclear Safety Analysis Reports)

DOE Order 5480.24 - (Nuclear Criticality Safety)
DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)
DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)
DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS
CAA REGULATIONS
RCRA REGULATIONS
TSCA REGULATIONS

REGULATORY KEY ISSUES:

Waste has been retrievably stored in 25 trenches since 1970. Some waste packaging began approaching their 20 year design life in 1990 and will exceed the design life by 9 to 18 years by the time retrieval operations are initiated in 1998 and completed in 2017. The consequence of delaying retrieval operations could result in containers being stored for 48 years (i.e., 28 years beyond design life). Some of the containers are projected to be breached, which adds complications to the retrieval activities in terms of ALARA, waste retrieval facility design, environmental impacts, increased waste volumes, and retrieval costs.

Retrieval of all TRU waste can best be accomplished via a phased approach in which Phase 1 (W-113) addresses the waste in a single trench that is expected to be essentially structurally intact and contamination free, with Phase 2 Retrieval addressing the balance of intact waste as well as more complex and technically challenging waste that, for at least some of the volume, will have structurally failed packages and release of contamination.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The target and required funding scenarios are the same. The longer waste containers remain in below grade storage, the greater the container degradation will be. Each year that passes, more containers exceed their storage design life. Additional degradation of containers could result in the incremental increase in release of hazardous and radioactive materials.

CONCERNS AT PLANNING LEVEL:

Should retrieval facility funding be any further than shown in the target and decrement cases and cause a schedule delay, additional degradation of waste packages will occur, causing incremental increase in release of hazardous and radioactive materials as well as a significant increase in retrieval costs (in fixed dollars). The latter is caused by the extra expense associated with retrieval of waste that is degraded, has additional problems with handling of the degraded packages and contents, as well as the contaminated earth surrounding the waste packages. Additionally, ALARA

principles encourage early retrieval since additional exposure of staff can be expected when retrieving waste with breached containers. Finally delaying the facility will most likely result in administrative and legal problems related to DOE Orders, EIS, and Tri-Party Agreements.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required. Application of certain technology to waste retrieval will need to be demonstrated.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 2 SUBACTIVITY: AB

SUBACTIVITY TITLE: W-113 PHASE 1 RETRIEVAL SYSTEMS ENGINEERING/ENVIR/SAFETY/QA

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 94-D-411 TPC: 46900 TEC: 28400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
TOTAL	1054
DIRECT FTE	1054
	12

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020	798	324		1056	1056	389	685	0	0
TOTAL	798	324	0	1056	1056	389	685	0	0
DIRECT FTE	6	4	0	12	12	7	6	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020	798	361		584	584	939	371	0	0
TOTAL	798	361	0	584	584	939	371	0	0
DIRECT FTE	6	4	0	7	7	10	3	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This project supports design, construction and start-up of a facility that will be used to retrieve suspect Transuranic (TRU) waste from the storage trenches. Preliminary studies have been conducted on approaches to be taken in retrieval of waste from 25 trenches at the Hanford Site. Existing records have been analyzed for information as to the quantity and description of the various waste packages. A phased approach to address the retrieval has been selected as having a high probability of success in meeting both the short term needs to support the Waste Receiving and Processing (WRAP) Facility Module 1 (ADS 2220-01) feedstream requirements as well as recognizing the uncertainty of the condition of some of the buried waste. The Record of Decision (ROD) for the Hanford Defense Waste-Environmental Impact Statement (HDW-EIS) approves waste retrieval as the preferred alternative.

Phase 1 Retrieval is the Subproject that provides the retrieval capability as part of the Solid Waste Operations Complex (SWOC) MSA for retrieval, storage and treatment. Phase 1 Retrieval, Project W-113, is directed toward 1 of 25 trenches in which TRU waste is stored, where there is a high probability of retrieving and handling waste packages that are intact and without risk of contamination spread. The selected trench stores 10,000 suspect TRU containers. The trench contains drums, metal, plywood, and fiberglass reinforced plywood boxes. Retrieval of this trench requires approximately 6 years of retrieval operation. The Phase 2 Retrieval Facility, Project W-221 (ADS 2250-00), will address the remaining trenches where some waste containers are expected to be breached.

This Subactivity provides systems engineering support to Project W-113. Provide direction and coordination for preparation of required permits, NEPA, and Safety Documentation. Continue Preliminary Safety Analysis Report (PSAR) development and submit PSAR to DOE for review. Provide quality assurance, environmental and safety overview of the project.

RELATED ACTIVITIES NARRATIVE:

This Project is related to Waste Receiving and Processing (WRAP) Facility Module 1, (Project W-026), (ADS 2220-1).

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this ADS reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

Retrieval of waste is required by DOE Orders, and the ROD for the HDW-EIS on waste operations. Retrieval operations must be started, conducted, and completed in a timely manner that will support the operations in the WRAP Facility and avoid further contamination of the environment. The Waste Isolation Pilot Plant (WIPP) current schedules demand the retrievably stored TRU waste be processed and shipped by the end of Calendar Year (CY)

2018 and WRAP construction and operation schedules are keyed towards that processing rate.

ACTIVITY BY PRIORITY:

RL Priority A1. HQ Priority 2, 3, 4, 6. Hanford Site Priority 17. Retrieval of TRU waste in the Burial Grounds is required to prevent breached containers from contaminating the environment. 'The Burial Ground warrants priority management attention to avoid unnecessary increases in worker radiation exposure and cost during cleanup,' as stated in the DOE-HQ Spent Fuel Working Group Report, Volume 1, November 1993.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

FY 1992 workscope completed to date included the FDC revision, PSE revision, and the completion of a Conceptual Design Report (CDR) to validate design costs. This includes submittal of the construction project data sheets.

FY 1993 work included initiation of the Advanced Conceptual Design Report, development of an Supplemental Design Requirements Document (SDRD), conducting a value engineering, preparing a quality assurance plan, initiation of start-up activities, initiating the PSAR, and submittal of the Project Plan.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G In FY 1994, the ADCR will be completed. Key Decision 1 will be awarded. The design contractor will be selected and with contract award, the Preliminary Design (Title I) will commence. The NEPA permitting will be initiated and work on the PSAR will continue. The prototype Container Venting System (CVS) equipment will be designed and tested. The Draft Operational Strategy Plan will be issued. Establishment of the organizations for the operations and readiness review process, revision of the start-up plans and initiation of readiness review activities. The SDRD will be maintained. Key Decision 2 will be awarded and Detailed Design (Title II) will commence.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

This Project is related to Waste Receiving and Processing (WRAP) Facility Module 1, (Project W-026), (ADS 2220-1).

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Issue Draft FSAR.

^G Issue Final Fire Hazard Analysis.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Continue systems engineering support activities in support of construction and procurement activities.

ACTIVITY BY PRIORITY:

All activities in this subactivity are Priority 2, since they support compliance with TPA milestones related to tank waste disposal, and implementation of the Record of Decision for the HDW-EIS, in compliance with NEPA.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

A Project Activities Plan document (WHC-SD-W211-PAP-001) was completed on May 5, 1992, for use in the validation of FY 1994 funding. An Engineering Study (WHC-SD-W211-ES-001) was issued on November 3, 1992. The Project W-211 Justification of Mission Need was approved on January 19, 1993, representing completion of Key Decision 0. The Functional design Criteria document has been issued for review, and comments are being incorporated. Conceptual design was initiated on March 1, 1993.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Draft conceptual design and supporting preliminary safety evaluation documentation will be completed for 101-SY to support Key Decision 1 and OMB reviews in September 1993. Conceptual design on the remaining nine tanks will be ongoing, as well as required permitting and NEPA activities. Other activities include technology studies related to the Package 1 tanks and development of the project management structure (i.e., Project Plan, PMP, QAPP, etc.).

The growth in FY 1993 is attributed to the conceptual design activities associated with establishing a project baseline.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

Title I design and PSAR activities will be initiated on the Package 1 retrieval systems. Package 1 will include tanks 101-SY, 103-SY, and 102-AY under the target case. Conceptual design will be completed to support validation of the Project W-211 TEC/TPC in April 1994. The preliminary safety evaluation and documentation of the NEPA strategy will be completed. Technology studies supporting the Package 1 tanks will be completed. Permitting activities will continue. Other activities include verification of existing drawing configuration, and site investigations.

The growth in FY 1994 is attributed to the Title I design activities for the Package 1 retrieval systems.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Title I design, PSAR, NEPA, and permitting activities will be completed for the Package 1 systems. Following approval of Key Decision 2 and 3, the Package 1 Title II design, long-lead procurement, and construction will be initiated. Revision of the FSAR to reflect the Package 1 upgrades will be initiated. Other activities include continuing with verification of existing drawing configuration and site investigations.

The growth in FY 1995 is attributed to the Title II design, advanced procurement, and construction activities for the Package 1 retrieval systems.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Title II design, construction, and FSAR revisions will be completed for Package 1. Operational readiness activities will be completed for the Package 1 systems.

The growth in FY 1996 is attributed to the ramp-up of design, procurement, and construction of Package 1. The decline in FYs 1997 through 1999 is attributed to the completion of Package 1 activities.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

This activity is required to support programmatic commitments agreed to in the Hanford Federal Facility Agreement and Consent Order (TPA milestones M-01, M-02, M-03), and to comply with the Record of Decision for Disposal of Hanford Defense High-Level, Transuranic, and Tank Wastes, Federal Register V. 53 (72), pp. 12449-12453, April 14, 1988, in accordance with NEPA requirements of 40 CFR 265.197 1500-1508. In addition, this activity supports compliance with the following federal and state regulation and DOE Orders: 40 CFR 265.196, Response to Leaks or Spills and Disposition of Leaking or Unfit-for-Use Tank Systems; 40 CFR 265.197, Closure and Post-Closure Care; 40 CFR 268, Land Disposal Restriction; WAC 173-303-610, Closure and Post-Closure; 40 CFR 61, National Emission Standards for Hazardous Air Pollutants; WAC 246-247, Radiation Protection--Air Emissions; DOE Order 5820.2A, Radioactive Waste Management; DOE Order 5400.1, General Environmental Protection Program; and DOE Order 5400.5, Radiation Protection of the Public and the Environment.

REGULATORY KEY ISSUES:

None.

COMP/PROG BENEFITS AT PLANNING LEVEL:

Design, procurement, construction, and all supporting activities will be supported for Package 2 and 3 retrieval systems. These systems provide the retrieval capabilities for 7 additional DST's after Package 1, including the remaining 3 DSTs currently on the safety watch list.

Under the target case, project activities will be limited to providing retrieval upgrades for three tanks. At the planning level, work would proceed on providing retrieval systems for the remaining seven tanks included in the scope of Project W-211. Package 2 (for 3 additional tanks) would begin design in FY 1996 and operation readiness would complete in FY 1999. Package 3 (for the remaining 4 tanks) would start design in FY 1997 and work be continuing in construction in FY 1999.

Five of the tanks in Project W-211 are on the Watch List due to the generation of hydrogen gas by the tank waste. The Target Case supports design and installation of retrieval systems for two of these tanks, 101-SY and 103-SY, for mitigation/remediation of the tanks safety issues. At the Planning level, retrieval systems would be provided for the other three DST Watch List tanks; 103-AN, 104-AN, and 105-AN. Project W-211 supports mitigation/remediation by providing a means of mobilizing solids and removing the waste from the tanks for subsequent processing.

CONCERNS AT PLANNING LEVEL:

None.

REQUIRED TECHNICAL DEVELOPMENT:

The limited DST development work required to support Project W-211 is included in this subactivity.

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INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1210 ADS SUF: 4 SUBACTIVITY: AM

SUBACTIVITY TITLE: W-320, 106-C Sluicing

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3130010		TOTAL
CE 35EW31301		10168
TOTAL		0
DIRECT FTE		10168
		0

TARGET CASE (\$ IN THOUSANDS)

	B&R	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130010		22059	18962	10168		10168	1373	0	0	0
CE 35EW31301		2500	610	0		0	0	0	0	0
TOTAL		24559	19572	10168	0	10168	1373	0	0	0
DIRECT FTE		0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	B&R	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130010		22059	18962	10168		10168	1373	0	0	0
CE 35EW31301		2500	610	0		0	0	0	0	0
TOTAL		24559	19572	10168	0	10168	1373	0	0	0
DIRECT FTE		0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This activity will provide the facilities and equipment to demonstrate waste retrieval Single-Shell Tank (SST) 241-C-106. Tank 241-C-106 is a 530,000 gallon capacity SST located in the C-Tank Farm in the 200 East Area of the Hanford Site. The tank has been used for radioactive waste storage since 1947.

Between mid-1963 and mid-1969 Tank 241-C-106 received approximately 132,000 gallons of high-heat waste, including neutralized Plutonium-Uranium Extraction (PUREX) high-level waste and strontium-bearing solids from the strontium and cesium recovery program. In 1971, temperatures in excess on 99½C (210½F) were observed in the tank. The current decay heat generation rate has been calculated at (110,000 Btu/hrp20,000 Btu/hr.). To prevent the sludge from drying out and the tank from overheating, approximately 6,000 gallons of cooling water are added to the tank each month. Tank 241-C-106 was withdrawn from active service in 1979 and is categorized as sound (i.e., not known to be leaking).

Public Law 101-510 Section 3137 (Wyden Amendment), passed in November 1990, directs the Secretary of Energy to resolve and report to Congress on all the safety issues concerning waste tanks at Hanford. The waste tanks with a serious potential for release of high-level nuclear waste must have action plans for resolution of safety concerns. In response to the Wyden Amendment, 'a Plan to Implement Remediation of Waste Tank Safety Issues at the Hanford Site,' WHC-SP-0697 (September 1991), was submitted to the DOE - HQ as part of the report to Congress. The Plan identified a list of 23 Hanford Site waste tank safety issues. The high-heat waste stored in Tank 241-C-106 is the fourth priority 1 safety issue in the report to Congress.

The Hanford Federal Facility Agreement and Consent Order (Washington State Department of Ecology, et al., 1989), also known as the Tri-Party Agreement, includes milestones to demonstrate SST retrieval. Milestone M-07-00, 'Initiate full-scale demonstration of waste retrieval technology,' October 1997, requires waste retrieval from Hanford SST's as the initial phase of SST closure. Tank 241-C-106 has been identified as the M-07-00 retrieval demonstration tank by the U.S. Department of Energy.

Mobilization and removal of the heat-generating sludge in Tank 241-C-106 will resolve the high-heat safety issue in this SST. Tank-to-tank sluicing, an existing technology, involves injection of large quantities of low pressure (150 psi) water into the SST through two spray nozzles. The water dislodges the sludge and forms a slurry that is pumped from the SST to a double-shell receiver tank (DST). The heavy solids will settle in the DST and the lighter supernatant will be recirculated as sluicing liquid back to the SST. This process will provide the earliest closure of the high-heat safety issue. Removal of the heat-generating sludge allows cooling waste additions to cease.

This retrieval operation will place Tank 241-C-106 in a safe, interim stabilized state. Additional retrieval operations can proceed using alternate technology, as required, to achieve 95% waste retrieval per the terms of the Tri-Party Agreement M-07-00 Milestone.

This project scope includes:

- Engineering Studies;
- Tank inspections and structural analysis;
- FDC completion;
- Field walkdowns/existing equipment removal;
- NEPA documentation;
- Permitting documentation;
- Validation;
- DST modifications, equipment additions;
- Safety documentation;
- Definitive Design;
- Procurement and Construction;
- System turnover, start-up testing and ORR's.

RELATED ACTIVITIES NARRATIVE:

Initial engineering studies were performed under ADS 1210-0-AM. Retrieval operations are funded under 1210-0-AJ.

KEY ASSUMPTIONS:

Regulators must concur with the retrieval approach. Retrieval actions will require modification to the RCRA Part A permit and tank closure planning. Washington State Department of Ecology must also concur with the selection of 241-C-106 for the M-07 retrieval demonstration.

The current schedule for this project assumes that an EA will be the required NEPA documentation. If an EIS is required, it is assumed that the scope will be covered under ADS 1200.

Safety documentation for this project will consist of PSE, PSEL, and limited scope safety analysis.

All of the W-320 project scope is a combination of expense and CENRTC funding. Retrieval operations are expected to be completed within one year of start-up. Any equipment which has beneficial use after completion of radioactive operations will be capitalized at that time.

The tank 241-C-106 retrieval demonstration (M-07) will provide equipment design and operational data that can be used for the M-08 tank farm closure demonstration.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

The CENRTC funded items associated with this project consists of emergency power, tank upgrades to 241-C-106 and 241-AY-102, and control room modifications.

ACTIVITY BY PRIORITY:

Work scope of this subactivity is priority 2, since it supports compliance

with Tri-Party Agreement milestones related to tank waste disposal, and implementation of the Record of Decision for the HDW-EIS, in compliance with the National Environmental Policy Act (NEPA).

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

W-320 106-C SLUICING
W-320 106-C SLUICING

TASKS COMPLETED TO DATE:

The engineering study for sluicing retrieval of the waste from tank 241-C-106 was completed in early FY 93. A draft Functional Design Criteria was also prepared, along with initiation of the NEPA (ADM) and safety documentation (PSE,PSEL). The Justification for Mission Need, and Construction Project Data Sheet were developed in support of the project validation presentation documentation.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Operational evaluation of the C and AY tank farms will be conducted involving walk downs, Tank 241-C-106 pit clean out, and clean up of Tank 241-AY-102. In addition, verifying operability of the existing equipment in the two tank farms will be performed, along with initiating the planning for D&D of unused existing equipment.

The FDC will be completed, reviewed and submitted to RL for review/approval.

Advance engineering studies in support of the definitive design will be completed. Definitive design of the transfer system, HVAC system and retrieval system will be initiated.

Planning and discussions with Washington State Department of Health (DOH) and EPA for preparation of the CAA permit will be initiated.

The Project Plan will be prepared.

The Project Plan will be completed with a draft copy submitted to RL for review.

Structural and thermal analysis of the Tank 241-C-106 will be initiated in support of developing the safety documentation. The safety documentation will also be initiated.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

The NEPA (EA) documentation will be DOE approved.

The definitive design will continue throughout the year with initiation of long lead procurement of the HVAC system, transfer system and retrieval system.

The SST Part A permit will be developed, DOE reviewed and approved, and submitted to Ecology for review and approval. In addition, the DST Part B permit modification will also be initiated.

The Project Management documentation will be completed including all required reviews and approvals, and submitted to RL for review/approval.

The PSE and PSEL documentation will be issued upon incorporation of all comments. The safety documentation work will continue throughout the year.

The DST FSAR modification, will be initiated.

The CAA permit application will be submitted for approval from EPA, DOH, and DOE.

The old equipment from Tanks 241-C-106 and 241-AY-102 will be removed and disposed.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Approval of the RCRA SST Part A modification will be obtained, and modification of the RCRA SAT Part B permit application for the transfer system will be completed.

Definitive design of the transfer system, HVAC system, and retrieval system will be completed. Construction will be initiated.

Long-lead procurement items associated with the transfer, HVAC, and retrieval systems will be completed to support the construction schedule.

The tank analysis work in support of the safety documentation will be completed.

The safety documentation will be completed, reviewed, comments incorporated and issued, including the addendum to the DST FSAR.

Planning documentation for operational start-up, including training of personnel, and readiness reviews will be initiated.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

The construction activities associated with the transfer, HVAC, and retrieval systems will be completed. The construction acceptance testing and start-up testing will be performed. Operations will continue their preparation for retrieval operations, which includes operator training, and readiness reviews (FY 96).

All operational activities associated with preparation for retrieval of the waste will be completed (FY 97) (1210-0-AJ).

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

This activity is required to support programmatic commitments agreed to in the Tri-Party Agreement M-07 milestone. In addition this activity supports compliance with the following federal and state regulations and DOE Orders:

- 10 CFR 260-270, RCRA Hazardous Waste Regulations
- 29 CFR 1926, OSHA Construction Safety
- 40 CFR 61, National Emissions Standards for Hazardous Air Pollutants
- 40 CFR 265, Subpart J Tank Systems
- 40 CFR 265.13, RCRA Waste Analysis and Characterization
- 40 CFR 265.194, Tank Systems, Inspections
- 40 CFR 265.196, RCRA Waste Removal Requirements
- 40 CFR 265.200, Radiation Protection of the Public and the Environment
- 40 CFR 268.50, Prohibitions on Storage of Restricted Wastes
- 40 CFR 280, Technical Standards and Corrective Action Requirements for Owners and Operators of Underground storage Tanks (UST)
- 40 CFR 280, Approval of Underground Storage Tank Programs
- WAC 173-303-280 to 390, Dangerous Waste Regulations
- WAC 246-247, Radiation Protection--Air Emissions
- DOE Order 5400.1, General Environmental Protection Program
- DOE Order 5400.5, Radiation Protection of the Public and the Environment
- DOE Order 5480.5, Safety of Nuclear Facilities
- DOE Order 5820.2A, Radioactive Waste Management

REGULATORY KEY ISSUES:

The retrieval program is an integral part of the Tank Waste Remediation System (TWRS) Program. In December 1991, safety and legal drivers forced major changes in this program. First, the primary focus of the TWRS Program was substantially changed from disposal of tank waste to resolution of the tank safety issues. Second, it was determined that the key pretreatment facility essential to both the new and the old focus could not meet the legal requirements for processing tank wastes. This left no suitable pretreatment alternative. As a result of these programmatic changes, existing program and program element logics, work breakdown structures, goals and objectives, work scopes and schedules were made obsolete. All of these program requirements are being redeveloped as part of the Decision Plan, due for completion in August 1993. Since these program requirements are not currently in place, the work scope proposed in this TDD is based upon best technical judgement of the work required in 1993. Cost estimates are based upon a variety of data from best technical judgements to fully validated project cost estimates. Work scope and cost estimates may change as the Decision Plan is finalized.

Additional issues associated with Project W-320 include the potential of tank leaking during the sluicing operation; the implementation of leak detection along with surface and/or subsurface barriers; and tank closure in relationship with TPA Milestones M-07, M-08, and M-09.

COMP/PROG BENEFITS AT PLANNING LEVEL:

Full activity funding is established at the target level.

CONCERNS AT PLANNING LEVEL:

None

REQUIRED TECHNICAL DEVELOPMENT:

Advanced vision/monitoring systems are required to improve operating efficiencies of the sluicing process. Past sluicing operations at Hanford were slowed by inability to perform real-time (or near real-time) monitoring of the retrieval process. Operations were shut down to allow in-tank photography.

E-T010

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1220 ADS SUF: 0 SUBACTIVITY: ZZ

SUBACTIVITY TITLE: PRETREATMENT

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO:

TPC:

TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE	EW3130010	TOTAL
LI	39EW31301	14702
		0
TOTAL		14702
DIRECT FTE		0

TARGET CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL BUD	LEGAL	ESH	TOTAL				
OE	EW3130010	24315	23505	22150		22150	26147	39730	26905	18594
LI	39EW31301	0	0	0		0	0	0	6954	3192
TOTAL		24315	23505	22150	0	22150	26147	39730	33859	21786
DIRECT FTE		0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL BUD	LEGAL	ESH	TOTAL				
OE	EW3130010	24315	23505	22150		22150	26147	39660	26905	18594
LI	39EW31301	0	0	0		0	0	0	6954	3192
TOTAL		24315	23505	22150	0	22150	26147	39660	33859	21786
DIRECT FTE		0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:
MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1230 ADS SUF: 0 SUBACTIVITY: AC

SUBACTIVITY TITLE: Low Level Waste Disposal Program

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE	EW3130010	TOTAL
CE	35EW31301	19813
LI	39EW31301	999
		0
TOTAL		20812
DIRECT FTE		0

TARGET CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE	EW3130010	32569	45102	41186			41186	33329	53042	60835
CE	35EW31301	400	509	999			999	847	1116	942
LI	39EW31301	0	0	0			0	5343	32430	83065
TOTAL		32969	45611	42185	0	42185	39519	86588	144842	192010
DIRECT FTE		115	114	118	0	118	148	207	258	295

PLANNING CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE	EW3130010	32569	45102	41186			41186	33329	53042	60835
CE	35EW31301	400	509	999			999	847	1116	942
LI	39EW31301	0	0	0			0	5343	32430	83065
TOTAL		32969	45611	42185	0	42185	39519	86588	144842	192010
DIRECT FTE		115	114	118	0	118	148	207	258	295

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

Simply stated, the process of grouting low level tank waste involves blending a specified mixture of dry materials (typically fly ash, attapulgite clay, blast furnace slag, and Portland Cement) with the low level tank waste in a specified ratio, and at a consistent and monitored flow rate to successfully immobilize DST waste in near-surface reinforced rectangular concrete disposal vaults. The rectangular design will be utilized for the near-term.

This subactivity takes into account the public and stakeholders' concerns in meeting the vision/missions/goals and objectives of the Hanford Site and the Hanford Grout Disposal Program (HGDP). Accomplishing this will require the construction of a new low level waste (LLW) processing facility, including a Grout Facilities office complex to house engineering, operations, maintenance, and health physics technicians (HPTs) and other facility support personnel, as well as the development of an acceptable waste form for the next century.

Significant work will be undertaken to evaluate and develop enhanced disposal waste forms. Waste form engineering studies and research and development (R&D) activities will be occurring in many areas such as: literature searches, identifying waste form acceptance criteria, definition of reference waste feed, and identification of any pretreatment (transuranic isotopes, cesium and strontium, technetium and iodine, nitrates and nitrites, Land Disposal Restrictions (LDRs), and complexing agents') needs.

RELATED ACTIVITIES NARRATIVE:

This activity is independent of workscope described on ADS 1230 to accomplish milestone M-01. However, this subactivity will take advantage of technology developments in the areas of an enhanced waste form and more effective, efficient, economical, and environmentally sound processing techniques.

KEY ASSUMPTIONS:

This ADS/TDD was prepared to meet a Tank Waste Remediation System (TWRS) regulatory compliance program baseline. The New Technical Strategy for TWRS, as currently being developed, will be incorporated into the FY 1996 ADS submittal.

All work associated with this subactivity has been delayed until FY 1994, in addition, all further work associated with this subactivity will end September 30, 1994 should target funding be implemented.

Receipt of incremental funding (above the target funding level) is necessary for the continued efforts associated with this subactivity.

The majority of this effort is focused on the utilization of the Glass in Sulfur waste form. However, R&D work will be conducted on all the enhanced waste forms suggested in past studies. Should this work reveal other potential enhanced waste forms, those will be evaluated as well to ensure the proper selection which will satisfy all the stakeholders, and meet the

vision and mission of the Hanford Site.

ACTIVITY BY PRIORITY:

The workscope described in this subactivity is thought to be a 4 on the HQ priority list. Although not required by current agreements or regulatory compliance or safe operations, this work would enhance the current scope of the Grout Disposal Program by further development of alternate waste forms which will increase the capacity of the site to dispose of the waste stored in the underground storage tanks (USTs).

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

GLASS FORMULATION DEVELOPMENT - (AC)

GLASS FORMULATION DEVELOPMENT - (AC)

ENHANCED/ALT WASTE FORM DEVELOPMENT (AC)

TASKS COMPLETED TO DATE:

This subactivity has been identified by members of the TWRS working group to be evaluated. Very preliminary work has begun on engineering studies for the future facility and enhanced waste forms.

An engineering study ('Grout Feed Contaminate Removal', SD-WM-ES-184, Rev 0) was prepared which defines many of the alternatives associated with this subactivity. This document has been approved for public release.

Grout Facilities has submitted a technology plan which addresses reference, enhanced, and alternate waste forms.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
1230-00-0060	Submit justification of mission needs to RL	2/01/94	1/31/94
1230-00-0010	Define and Issue LLW Sim.Recipe for Initial Melter Tests	5/31/94	5/31/94
1230-00-0055	Issue Low-Level Waste Disposal Program Management Plan	5/31/94	5/31/94
1230-00-0070	Award Contract to First Vendor to conduct LLW Melter tests/Sim.	6/30/94	6/30/94
1230-00-0075	Submit Facility Options Engineering Study	6/30/94	6/30/94
1230-00-0005	Begin Low-Level Waste Melter Testing with Simulants	9/30/94	9/30/94
1230-00-0025	Prepare draft Part A permit application	9/30/94	9/30/94
1230-00-0050	Submit WHC approved F&R Document for review and approval	9/30/94	9/30/94

CURRENT YEAR (FY 1994) TASK NARRATIVE:

Developed the technical strategy alternatives which have been included in the TWRS rebaseline effort.

During this period very minimal work has been undertaken to develop engineering studies in two areas, facility criteria, and enhanced waste form literature searches. One engineering study will examine the physical plant type (i.e., processing facility; disposal techniques; pretreatment capabilities; operations management facilities; and other support buildings) as necessary. The other engineering study will be the very preliminary work associated with development of an enhanced waste form, process flow sheets, and facility concepts.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

o The following activities will be supported at the Target Case funding level:

-Activities include engineering studies associated with the new facility and glass sulfur waste form studies.

o Receipt of Compliance/Planning funding in all fiscal years covered by this ADS will support the following activities for this fiscal year:

-Begin initial literature searches, development of criteria documentation, and finalize technology plan for the evaluation of enhanced and alternate waste forms.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
1230-00-0015	Complete Melter Feasibility and System Operational Tests	6/30/96	6/30/96

PLANNING YEAR (FY 1996) TASK NARRATIVE:

o This subactivity is unfunded at the Target Case funding level.

o Receipt of Compliance/Planning funding in all fiscal years covered by this ADS will support the following in this fiscal year:

-The preparation and completion of the Preliminary Safety Analysis Report (PSAR) and work on the Final Safety Analysis Report (FSAR) will begin.

-Initiate work on permitting/regulatory issues

-Work will continue on Glass Sulfur in Cement, and work will be started on the evaluation of the Waste Drying, Denitration, Polyethylene Encapsulation, Ceramic Formings, Mineralization, and In-Situ Vitrification in Place and of retrieved waste.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
1230-00-0030	Conceptual Design Report/Definitive Design	11/30/96	11/30/96
1230-00-0020	Initiate Construction	12/31/97	12/31/97

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

o This subactivity is unfunded at the Target Case funding level.

o Receipt of Compliance/Planning funding in all fiscal years covered by this ADS will support the following in this fiscal year:

-During this time period, validation for the facility will occur to qualify it as an FY 2000 MSA.

-A preliminary report addressing the enhanced waste form of choice will be issued to support the project validation. The scope of this report will define the risks, costs, and benefits associated with the preferred waste form. This data will be gathered from work on formulation development and associated validation through pilot plant testing versus the waste form criteria document will then be developed. The final report, which will identify the preferred waste form, will be issued to support the definitive design process of the facility.

-Begin development of equipment specifications and facility conceptual design.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The main driver of this subactivity is the evaluation of waste forms required by the Hanford Defense Waste Environmental Impact Statement (HDW-EIS), and the Decision Plan for disposal of single shell tank volumes, as well as the finalization of the TWRS baseline efforts.

REGULATORY KEY ISSUES:

Technical options being considered for pretreatment and immobilization of LLW will require more time to implement than originally scoped in the HDW-EIS. This option is anticipated to be addressed in the NTS.

The Target Case funding leve does not support the current TPA milestones as proposed in TPA Change Request M-01-92-01a, or allow the option given in this subactivity to be fully examined as it applies to disposal of current DST waste.

COMP/PROG BENEFITS AT PLANNING LEVEL:

Undetermined at this time.

CONCERNS AT PLANNING LEVEL:

Undetermined at this time.

REQUIRED TECHNICAL DEVELOPMENT:

Unknown at this time.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1240 ADS SUF: 0 SUBACTIVITY: XX

SUBACTIVITY TITLE: High Level Waste Disposal

INSTALLATION: HANFORD

CATEGORY: WM

DEFENSE/NON-DEFENSE:

VERSION DATE: 5/12/93

PROGRAM: EM

PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO:

TPC:

TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130010	TOTAL
	832
TOTAL	832
DIRECT FTE	8

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130010	13969	11916	16798			16798	24810	41337	30094
CE 35EW31301	0	3561	3939			3939	2938	2849	0
LI 39EW31301	0	0	0			0	0	0	26539
TOTAL	13969	15477	20737	0	20737	27748	44186	56633	108242
DIRECT FTE	20	0	34	0	34	52	88	129	194

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130010	13969	11916	16798			16798	24810	41337	30094
CE 35EW31301	0	3561	3939			3939	2938	2849	0
LI 39EW31301	0	0	0			0	0	0	26539
TOTAL	13969	15477	20737	0	20737	27748	44186	56633	108242
DIRECT FTE	20	0	34	0	34	52	88	129	194

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

HIGH LEVEL WASTE DISPOSAL
HIGH LEVEL WASTE DISPOSAL

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

E-T010

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1280 ADS SUF: 0 SUBACTIVITY: AA

SUBACTIVITY TITLE: W-236A Multi-Function Waste Tank Facility

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3130010		TOTAL
LI 39EW31301		492
TOTAL		109125
DIRECT FTE		109617
		0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130010	2467	1050	980		980	930	1380	935	0
LI 39EW31301	35660	83975	109125		109125	112675	69615	0	0
TOTAL	38127	85025	110105	0	110105	113605	70995	935	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130010	2467	1050	980		980	930	1380	935	0
LI 39EW31301	35660	83975	109125		109125	112675	69615	0	0
TOTAL	38127	85025	110105	0	110105	113605	70995	935	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The Secretary's Decision Letter of December 20, 1991, created the Tank Waste Remediation System (TWRS) and directed early implementation of waste processing facilities. These facilities were to be focused on resolving the Tank Safety issues by providing additional waste storage capacity and by destroying the source of the issue and pretreating selected wastes to allow progress towards disposal of the wastes. A new Major Systems Acquisition (MSA) was created. The Multi-Function Waste Remediation Facility was to consist of the Multi-Function Waste Tank Facility (MWTF), (W-236A) and an Initial Pretreatment Module (IPM), W-236B, that would contain the processes and facilities to meet these goals.

The new tank farm will provide an additional 6 million gallon storage capacity. This additional storage capacity will support interim safe storage of waste now stored in tanks on the safety watch list such as SSTs and DSTs that produce flammable gas, have flammable organics, have explosive ferrocyanide, and have a high level of radioactive decay heat generation. Retrieval and treatment of these wastes cannot proceed without this project providing additional storage space.

RELATED ACTIVITIES NARRATIVE:

This subactivity relates to Tank Safety (ADS 1200), Retrieval (ADS 1210), Pretreatment (ADS 1220), HWVP (ADS 1240), Upgrades (ADS 1120) and IPM (1280-0-AB).

KEY ASSUMPTIONS:

Facilities compliant with current regulations, codes, and standards must be constructed to provide safe and efficient interim storage of high-level waste.

Hanford high-level waste will be stored in single and double-shell tanks well beyond the year 2010.

New DSTs, waste transfer systems, instrumentation and control systems, ventilation systems, and electrical distribution systems will be required to support closure of the Waste Tank safety issues.

Additional tank space is required in accordance with the Waste Volume Projections.

The Total Estimated Cost (TEC) and Total Project Cost (TPC) are based on the planning case, as represented in the FY 1995 Construction Project Data Sheet.

ACTIVITY BY PRIORITY:

All activities within this Sub-Activity are rated at the same priority.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

The engineering study, FDC, CDR, ACDR, preliminary safety evaluation, preliminary safety analysis report, Title I, and the Action Description Memorandum (ADM) have been completed for MWTF.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
1280-00-0005	Key Decision 2 - Start Detailed Design (W-236A)	1/31/94	1/31/94

CURRENT YEAR (FY 1994) TASK NARRATIVE:

Complete Advanced Conceptual Design Report, schedule, and estimate to support capital funding authorization in FY 1993.

Prepare a schedule and cost estimate to support capital funding authorization in FY 1996. Initiate Detail Design (II) to support the initiation of construction.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
1280-00-0010	Key Decision 3 - Approval to Commence Construction (W-236A)	6/30/95	6/30/95

BUDGET YEAR (FY 1995) TASK NARRATIVE:

Provide engineering support, cost and scheduling report, technology development, and program integration to continue successful support of definitive design and construction for the MWTF.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
1280-00-0075	Complete W-236A Definitive Design	1/15/96	1/15/96

PLANNING YEAR (FY 1996) TASK NARRATIVE:

Continue definitive design, support start of construction and startup activities for the MWTF. This includes health physics technician, operator, and engineering support, as well as a continuance of the activities shown in Section 05 of this ADS.

If funding for the MWTF is not provided at the required level for all years through FY 1999, TPA milestone M-42-00 will be missed. This delay in funding impacts the ability to remediate tank safety issues.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
1280-00-0085	Provide Additional Storage Tanks, Complete Construction (W-236A)	10/31/99	10/31/99
1280-00-0015	Key Decision 4 - Approval to Commence Operation (W-236A)	12/31/99	12/31/99

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Continue construction of the MWTF Leading to completion in FY 1999.

Procurement, construction, ATPs, OTPs, readiness review, and start-up will be completed.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

National Environmental Policy Act (NEPA). 40 CFR 1500 Code of Federal Regulation. Washington State Environmental Policy Act. Washington Administrative Code (WAC) 173-303-Sec. 640, 1987 Resource Conservation and Recovery Act of 1976. DOE order 5480.5, Safety of Nuclear Facilities. DOE order 5481.1B, Safety Analysis and Review System. DOE order 5820.2A, Radioactive Waste Management. Tri-Party Agreement Milestone M-31-00.

Subtitle C of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976 establishes the regulatory requirement for facilities that treat, store, or dispose of hazardous waste. The implementing regulations of RCRA are 40 Code of Federal Regulations (CFR) Parts 260 through 268 and 270. In addition, the Washington State Department of Ecology has been authorized to implement portions of the Federal RCRA program through regulations established at the Washington Administrative Code (WAC) 173-303.

REGULATORY KEY ISSUES:

TPA Milestone M-42-00 will not be met if this ADS is not funded.

If new compliant double-shell storage capacity is not constructed, the long term missions of final waste disposal at Hanford will be jeopardized. Sufficient waste storage capacity to support pretreatment, vitrification, waste retrieval, tank remediation activities, and continued facility operation all require construction of new storage capacity.

COMP/PROG BENEFITS AT PLANNING LEVEL:

If funding for the multi-function tank facility is not provided at the Required Level for all years through FY 1999, TPA Milestone M-31-01 will be missed. The target level funding supports current schedule at this time.

CONCERNS AT PLANNING LEVEL:

None

REQUIRED TECHNICAL DEVELOPMENT:

None

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 1280 ADS SUF: 0 SUBACTIVITY: ZZ

SUBACTIVITY TITLE: IPM budget

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND TANK WASTE REMED SYS-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3130010		TOTAL
LI 39EW31301		2905
TOTAL		13821
DIRECT FTE		16726
		0

TARGET CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130010		17000	21207	2476		2476	2945	10320	8479	6220
LI 39EW31301		10000	9775	36267		36267	39690	87204	85914	88552
TOTAL		27000	30982	38743	0	38743	42635	97524	94393	94772
DIRECT FTE		0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130010		17000	21207	2456		2456	2945	10320	8479	6220
LI 39EW31301		10000	9775	36267		36267	39690	87204	85914	88552
TOTAL		27000	30982	38723	0	38723	42635	97524	94393	94772
DIRECT FTE		0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

RELATED ACTIVITIES NARRATIVE:

KEY ASSUMPTIONS:

ACTIVITY BY PRIORITY:

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

FY 1995 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

FY 1996 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1997-FY 2000 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

REGULATORY KEY ISSUES:

COMP/PROG BENEFITS AT PLANNING LEVEL:

CONCERNS AT PLANNING LEVEL:

REQUIRED TECHNICAL DEVELOPMENT:

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AA

SUBACTIVITY TITLE: HAZARDOUS WASTE PRE-DESIGNATIONS

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
TOTAL	561
DIRECT FTE	561
	5

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	0	503			561	561	467	588	633
TOTAL	0	503	0		561	561	467	588	633
DIRECT FTE	0	5	0		5	5	4	6	6

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	0	561			630	630	981	1012	1180
TOTAL	0	561	0		630	630	981	1012	1180
DIRECT FTE	0	5	0		5	5	8	8	9

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This activity funds managerial and administrative support for the 616 Nonradioactive Dangerous Waste Facility and the Central Landfill. These support functions include engineering analysis, dangerous waste pre-designations, waste generator assessments, technical guidance; and direction to generators for waste analysis, packaging, and handling. This activity is required by Washington Administrative Code (WAC) 173-303. Wastes are shipped to the 616 Nonradioactive Dangerous Waste Facility for interim storage. Dangerous wastes are batched and profiled together then periodically shipped off-site for treatment and disposal. Operation of the 616 Facility is funded under separate TDD, under ADS 2200-00-AK.

RELATED ACTIVITIES NARRATIVE:

This activity is related to the treatment, storage; and disposal of solid nondangerous waste, radioactive waste, and dangerous wastes. Specifically, ADS 2200-00-AK provides for the Operation of the 616 Facility.

KEY ASSUMPTIONS:

This activity assumes Hanford continues to receive nondangerous for on-site disposal waste and nonradioactive dangerous waste from on-site generators for on-site interim storage, off-site treatment, and disposal.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

RL Priority A1, DOE-HQ Priority 2, in support of compliance with environmental laws and the Tri-Party Agreement.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Completed approximately 500 waste analyses for pre-designation of waste classifications per year.

SCHEDULE INFORMATION

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

The base program as defined in the Outyear narrative is currently funded as an overhead account.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

The base program is defined in the Outyear narrative.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

See Outyear narrative.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Complete approximately 500 waste analyses per year in support of shipping nonradioactive dangerous waste to the 616 Facility for interim storage and subsequent off-site shipment for treatment and disposal. Provide pre-designation of nondangerous waste for disposal in the Central Landfill. Provide engineering analyses, dangerous waste pre-designations, waste generator assessments, technical guidance and direction to generators for waste analysis, packaging, and handling.

DRIVERS AND IMPACTS INFORMATION

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Numerous state and federal regulations apply to the process of designating waste. The DOE Order 5820.2A applies to designating low-level waste, transuranic waste, and high level wastes. Dangerous constituents in mixed wastes are designated in accordance with RCRA and the Washington State Dangerous Waste regulations.

DOE 5820.2A - (Radioactive Waste Management)
DOE 5400.3 - (Radioactive Mixed Waste)
WAC 173-303-016 - (Identifying a solid waste)
WAC 173-303-020 - (Applicability)
WAC 173-303-040 - (Definitions)
WAC 173-303-045 - (References to EPA's hazardous waste)
WAC 173-303-070 - (Designation of dangerous waste)
WAC 173-303-072 - (Exempting and excluding wastes)
WAC 173-303-075 - (Certification of Designation)
WAC 173-303-080 - (Dangerous waste lists)
WAC 173-303-081 - (Discarded chemical products)
WAC 173-303-082 - (Dangerous waste sources)
WAC 173-303-083 - (Infectious dangerous wastes)
WAC 173-303-084 - (Dangerous waste mixtures)
WAC 173-303-090 - (Dangerous waste characteristics)
WAC 173-303-100 - (Dangerous waste criteria)
WAC 173-303-101 - (Toxic dangerous wastes)
WAC 173-303-102 - (Persistent dangerous wastes)
WAC 173-303-103 - (Carcinogenic dangerous wastes)
WAC 173-303-104 - (Generic dangerous waste numbers)
WAC 173-303-110 - (Sampling and testing methods)
WAC 173-303-120 - (Recycled, reclaimed, and recovered wastes) WAC 173-303-140 - (Land disposal restrictions)
WAC 173-303-141 - (Treatment, storage, or disposal of dangerous waste) WAC 173-303-150 - (Division, dilution, and accumulation)
WAC 173-303-160 - (Containers)
WAC 173-303-161 - (Overpacked containers [labpacks])
WAC 173-303-180 - (Manifest)
WAC 173-303-280 - (General requirements)
WAC 173-303-300 - (General waste analysis)
WAC 173-303-370 - (Manifest system)
WAC 173-303-380 - (Facility recordkeeping)
WAC 173-303-390 - (Facility reporting)
WAC 173-303-395 - (Other general requirements)
WAC 173-303-400 - (Interim status facility standards)
WAC 173-303-9901 - (Flowchart for designating dangerous wastes) WAC 173-303-9902 - (Narrative for designating dangerous wastes)

40 CFR260-268 - (RCRA)

REGULATORY KEY ISSUES:

This activity assumes that the Hanford 616 Nonradioactive Dangerous Waste Facility continues to receive and manage nonradioactive hazardous wastes from on-site generators for interim storage and that the Central Landfill continues to receive nondangerous waste for disposal.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The target and planning level benefits are identical.

CONCERNS AT PLANNING LEVEL:

The planning and target level funding is the same. This activity is an on-going function required for compliance with RCRA and Washington State regulations. If not direct funded, this activity will be funded via an overhead account.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AB

SUBACTIVITY TITLE: CENTRAL WASTE COMPLEX (CWC)

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO:

TPC:

TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3130020		TOTAL
CE 35EW31302		2584
TOTAL		458
DIRECT FTE		3042
		22

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	2350	2107		2584	2584	3089	3245	3902	4112
CE 35EW31302	222	295		458	458	196	603	0	990
GP 39EW31302	900	0		0	0	438	0	1558	1527
TOTAL	3472	2403	0	3042	3042	3724	3848	5461	6629
DIRECT FTE	21	20	0	22	22	25	27	28	29

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	2350	2487		4439	4439	3662	4075	4292	4528
CE 35EW31302	222	295		458	458	196	603	0	676
GP 39EW31302	900	0		0	0	1800	0	1900	1980
TOTAL	3472	2782	0	4897	4897	5659	4678	6192	7184
DIRECT FTE	21	21	0	24	24	25	27	28	28

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The Central Waste Complex (CWC) provides permitted Resource Conservation and Recovery Act (RCRA) compliant mixed waste storage for the Hanford Site. The facility has interim status and the draft Part B Permit has been submitted to the regulators for approval. The CWC has the capacity for storage of 52,000 drums of mixed waste. The facility has the infrastructure and equipment necessary for the receipt and storage of mixed waste.

RELATED ACTIVITIES NARRATIVE:

Most subactivities in Activity Data Sheet (ADS) 2200 are related to this activity. Specifically, ADS 2200-00-AT provides for the field operations administrative support.

KEY ASSUMPTIONS:

It is assumed that the base operating activities will be fully direct funded to the planning level for this activity. If not fully direct funded, supplemental funding may be required from the chargeback/assessment program to accommodate the waste receipts expected.

This activity assumes that the CWC will continue to receive waste from on-site and off-site generators.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

All activities funded by this TDD will be RL Priority A2, DOE-HQ Priority 1, in support of ongoing waste management operations activities required to maintain safe facility conditions.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

CWC CAPITAL EQUIPMENT
CWC CAPITAL EQUIPMENT
CWC CAPITAL EQUIPMENT

TASKS COMPLETED TO DATE:

The CWC provides receipt and storage of RCRA and State regulated wastes.

Approximately 20,000 cubic feet of radioactive mixed waste is received each year.

Construction of Project W-016 Phases II-IV were completed in 1992 and provide an additional 123,250 square feet of storage space. The overall capacity of CWC is now approximately 52,000 drum equivalents.

The Part B permit application has been submitted and is pending approval from the regulators.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

The main purpose of the CWC is to receive and store mixed waste. Approximately 20,000 cubic feet of mixed waste is expected to be received this fiscal year. Additional work activities include the barcoding on an additional 1600 containers. See Outyear's section for definition of the base program.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

The base program, as defined in the Outyears' section, will continue to be direct funded for FY 1995. The Field Operations Administrative support for the CWC will be split into the new TDD, 2200-00-AT. The base program should again be fully direct funded in FY 1996. The remaining incremental costs, including generating costs and surcharges, will be included as part of the chargeback/assessment program.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

See Outyears' narrative.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

This activity provides for the operation of the Hanford Central Waste Complex (CWC). The CWC provides RCRA compliant storage of low-level mixed waste (LLMW) and Transuranic (TRU) mixed waste. The CWC also stores other waste such as contaminated oils, chelating agents and certain other TRU and Greater than Class C wastes. This activity provides funding for the operating base program that consists of facility surveillance and monitoring, building and equipment maintenance, personnel training and certification, facility utilities cost, procurement of support equipment.

database management, TSD statutory/regulatory compliance, facility upgrades, quality assurance and quality control, TSD spill prevention, Health Physics support, and operation activities in preparation to receive waste. The Field Operations Administrative support will be funded in TDD 2200-00-AT. RL is committed to direct fund the CWC base operating program.

DRIVERS AND IMPACTS INFORMATION

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

This activity involves the operation and maintenance of the Central Waste Complex, which is a RCRA compliant waste storage facility. As such, the facility must be maintained and operated in accordance with state and federal regulations.

Applicable Regulations Include:

10CFR835.101 - (Occupational Radiation Protection)
40CFR 191.03(b) - (Radioactive waste storage)
40CFR 61.92 - (Control of radionuclide air emissions)
40CFR 264.14 - (Security of a TSD facility)
40CFR 264.17 - (Requirements for ignitable, reactive or incompatible waste)
40CFR 264.175(a-b) - (Containment)
40CFR 264.176 - (Special requirements for ignitable or reactive wastes)
40CFR 264.177(c) - (Special requirements for incompatible wastes) 40CFR
268.7(a) - (Certification LDR requirements)
40CFR 268.9(a) - (Need waste code)
40CFR 268.3(j)(1-2) - (Need test for corrosive and halogens) 40CFR
761.65(2-4) - (Storage for disposal - PCBs)
40CFR 761.180 - (Records and reports - PCBs)

WAC 173-303-141 - (Receive only designated wastes)
WAC 173-303-283(3) - (Performance standards)
WAC 173-303-300 - (Waste analysis)
WAC 173-303-310(2) - (Security)
WAC 173-303-320 - (Inspections)
WAC 173-303-330 - (Training)
WAC 173-303-340 - (Preparedness)
WAC 173-303-350 - (Contingencies)
WAC 173-303-355 - (SARA III)
WAC 173-303-370 - (Manifests)
WAC 173-303-380 - (Record Keeping)
WAC 173-303-390 - (Reporting)
WAC 173-303-395(1,2,4) - (Other general requirements)
WAC 173-303-400 - (Interim status standards)
WAC 173-303-630(2,5,7,8,9) - (Use and management of containers)

55FR 22669-22670 - (Periodic verification analysis)

DOE Order 5400.3 - (Mixed waste program)
DOE Order 5480.19 - (Conduct of operations)
DOE Order 5820.2A - (Radioactive waste management)

REGULATORY KEY ISSUES:

The current projected capacity of the CWC is based on the start-up of on-site mixed waste treatment facilities at the Waste Isolation Pilot Plant (WIPP) site receiving certified TRU waste from Hanford. If treatment capacity is not available and WIPP continues to be delayed, additional RCRA

compliant mixed waste storage capacity will be required. The accuracy of waste generator forecasts are an issue. Current forecasts show the CWC exceeding its capacity as early as 1998.

COMP/PROG BENEFITS AT PLANNING LEVEL:

As directed by DOE-HQ guidance, planning level direct funding will maintain continuous safe operations in compliance with regulatory requirements.

At the planning level, additional storage for long contaminated equipment would be available via an a sprung structure type procurement. Additional material and equipment in support of operations and personnel enhancement training would be performed.

CONCERNS AT PLANNING LEVEL:

None.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development is required.

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OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AD

SUBACTIVITY TITLE: FIRE SYSTEM IMPLEMENTATION

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
TOTAL	0	0	0	0	0	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	0	540	505		505	0	0	0	0
TOTAL	0	540	505	0	505	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This activity provides for Fire Hazards Analysis (FHA) for all Solid Waste Management Facilities. Performance of FHA's will be compliant with DOE Order 5480.7A. This activity also provides engineering and administration to correct deficiencies found during performance of the FHA process.

Facilities covered will be those contained in the Central Waste Complex, the Low Level Burial Grounds, the Transuranic Storage and Assay Facility, and the Non-Radioactive Dangerous Waste Storage Facility.

RELATED ACTIVITIES NARRATIVE:

This activity is related to other subactivities in ADS-2200, specifically, subactivities 2200-00-AB, 2200-00-AH, 2200-00-AK, and 2200-00-AL.

KEY ASSUMPTIONS:

This activity assumes a phased implementation and full funding for two years for implementation of DOE Order 5480.7A.

ACTIVITY BY PRIORITY:

All activities in this subactivity are RL Priority D2, HQ Priority 3 to maintain safety related fire protection systems.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Planning meetings have been held between Solid Waste Management and Fire Protection Programs (FPP). During these meetings, planning, scheduling, and funding requirements were identified for compliance with DOE Order 5480.7A. It was decided to utilize contract personnel to perform the FHA since FPP cannot currently support this level of work.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:
No funding in 1994.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:
Planning level funding would provide for completion of Fire Hazards Analysis utilizing contract personnel directed by Solid Waste Management and Fire Protection Programs. Fire Hazards Analysis is required under newly implemented DOE Order 5480.7A.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:
Planning level funding provides for implementation of corrective actions for deficiencies identified during Fire Hazards Analysis. Corrected deficiencies will bring Solid Waste Disposal into compliance with DOE Order 5480.7A.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:
No activity nor funding requirements are identified for FY97-00.

DRIVERS AND IMPACTS INFORMATION

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

DOE Order 5480.7A - (Fire Protection)

REGULATORY KEY ISSUES:

Activity required to provide compliance with DOE Order 5480.7A.

COMP/PROG BENEFITS AT PLANNING LEVEL:

Planning level direct funding will maintain continuous safe operations in compliance with regulatory requirements, specifically with DOE Order 5480.7A

CONCERNS AT PLANNING LEVEL:

NONE

REQUIRED TECHNICAL DEVELOPMENT:

No technology development is required.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AE

SUBACTIVITY TITLE: BURIAL GROUND CLOSURE STUDIES

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
	1456
TOTAL	1456
DIRECT FTE	8

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	2334	1176	1456			1456	347	738	669
TOTAL	2334	1176	1456	0		1456	347	738	669
DIRECT FTE	5	6	8	0		8	3	5	4

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	2334	1434	1620			1620	1668	1718	1770
TOTAL	2334	1434	1620	0		1620	1668	1718	1770
DIRECT FTE	5	7	8	0		8	8	8	8

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

Federal and State environmental regulations require that a final cover be placed over hazardous waste landfills after they are filled. This activity initiates feasibility studies, environmental and risk assessments, equipment demonstrations, and construction work necessary to support the Low-Level Burial Ground (LLBG) closures identified in Chapter 11 of the LLBG Waste Permit Applications. The LLBG has been grouped into five Low-Level Waste Management Areas (LLWMA) for final closure as follows:

LLWMA-1	Burial Ground	218-E-10
LLWMA-2	Burial Ground	218-E-12B
LLWMA-3	Burial Grounds	218-W-3A, 218-W-3AE, and
		219-W-5
LLWMA-4	Burial Grounds	218-W-4B and 218-W-4C
LLWMA-5	Burial Ground	218-W-6

Closure of the LLBG will entail placement of impermeable cover material and groundwater monitoring systems to satisfy performance criteria specified in WAC 173-303-610 and DOE Order 5820.2A. The removal or relocation of roads, rail spur, or utilities in order to install the cover will be constructed as a Line Item project. This line item project is covered in ADS 2250. The objectives to be achieved by burial ground closure include minimization and control of any releases to the environment of dangerous waste, leachate, contaminated runoff, or decomposition products from the burial grounds, and prevention of human, animal, or plant intrusion into the buried wastes.

Important issues that must be addressed in order to initiate construction of the final closure cap include the following:

1. Development and testing of techniques to stabilize waste with the objective of preventing or reducing subsidence.
2. Testing and evaluation of alternatives cover and barriers that can be used to prevent contaminant migration and intrusion.
3. Evaluation and development of interim measures to minimize the potential for and enhance the detection of, contaminant migration.
4. Relocation, removal or abandonment of railroad spurs, roads, and other utilities which lie in the foot print of the closure caps.
5. Development of waste management plans that allows for optional utilization of existing burial capacity to accelerate closure of LLWMAs.

This activity will develop a strategy to integrate the operation and ultimate closure of the LLBGs. This includes optimization of the existing burial trenches; development of closure caps; monitoring, waste quantification, and development of capital projects; Identification of NEPA process requirements; and preparation of appropriate plans and schedules.

This activity further identifies potential subsidence scenarios and their

impacts to the closure caps, evaluates probability of occurrence for each, determine the 'zone of influence' for each scenario, identifies appropriate subsidence control for each, and recommends methods for control of subsidence for the LLBGs. (Note that it may be most cost effective to allow subsidence to occur and repair the geomembrane). Obtain and evaluate equipment for possible use in stabilization efforts (i.e., dynamic compaction, void space filling, etc.).

Identify and describe, by source, the LLWs expected to be received for disposal in the LLBGs over the next 30 years. Sources are expected to include PFP and PUREX TCO, D&D wastes, as well as the currently forecasted on and offsite 'RCRA' wastes.

Develop a strategy to optimize the existing LLBG areas for waste disposal, development, infrastructure relocations, runoff collection/control (due to partial closure) and closure. Identify needs for, and the proposed location(s) of additional burial grounds and associated regulatory documentation. Identify specific requirements for near term LLW disposal needs.

Identify both the pre and post closure monitoring (gas, groundwater, vadose zone, etc.) requirements for the LLBGs. Define the substances to be monitored for, as well as the substance concentration limits. Prepare a monitoring scheme and identify the equipment, method of recording and storing data, and methods of notification out of limits conditions.

The overall objectives of the proposed plans are to determine the waste disposal needs, develop viable management plans for the LLBG, identify interim alternatives and final closure options for the LLBG, evaluate the impacts to operations and utility use, and estimate the costs and environmental risks of each viable option. This activity plan anticipates that many of the scheduled closure activities identified in the LLBG Permit Application can be achieved, although some re-negotiation with the regulatory agencies may be required.

RELATED ACTIVITIES NARRATIVE:

This activity is related to subactivity 2200-00-AH, Solid Waste Operations and 2200-00-AN, Solid Waste Permitting. Line Item closure Project W-329 is funded in ADS 2250-00-AI.

KEY ASSUMPTIONS:

It is assumed that the current schedule for LLBG closure will be revised with Ecology to delay closure.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

RL priority A1. HQ priority 2. This activity is required for compliance with RCRA Part B Permit.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Completed engineering report with preliminary cost estimated for LLBG closure which only assumes the construction of covers which satisfy the State and Federal environmental requirements and not the DOE requirements for prevention of intrusion. Completed conceptual closure layout and schedule in December 1989. The current Part B Permit contains a closure schedule submitted to the regulators. As of this date, the environmental regulators have expressed that the proposed closure schedule be accelerated.

The requirements for closure covers from the Resource Conservation and Recovery Act (RCRA), State of Washington Dangerous Waste Regulation, and DOE Order 5820.2A, Radioactive Waste Management, have been identified.

Temporary closure covers for the LLBGs have been examined and options identified. A typical runoff/runoff control system for the 218-E-10 Burial Ground has been conceptualized and is ready for further development.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Initiate efforts to prepare the LLBG strategy plan. This requires initiating studies to quantify all potential wastes and their sources that are candidates for disposal in the LLBGs; preparation of a LLBG development plan based on the projected waste volumes and classifications; initiating a comprehensive study on interim and final LLBG closure options; Records review for locations of potentially significant void spaces and identification of methods/options to deal with the void spaces; Assessment of the impacts/opportunities of new regulatory provisions on the LLBGs (i.e., Debris Rule and CAMUs); identify all infrastructure that must be removed or relocated to accommodate closure; and Identification of disposal issues with respect to non low level category I wastes.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

Complete and issue Revision 0 of the LLBG Strategy Plan. Continue study efforts initiated in FY 1994. Initiate planning for capital projects for final closure of the LLBGs. Continue regulatory change assessments on the LLBG program. Continue equipment tests for LLBG stabilization.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Continue planning for capital projects for final closure of LLBG's/ Continue regulatory change assessments on the LLBG program. Continue equipment tests and methods examination for LLBG stabilization.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Initiate closure of identified LLBGs. Maintain operating permits. Continue assessments of waste receipts vs. projections and space utilization.

Evaluate material development for application to LLBG closure. Continue analyses of regulatory changes on LLBG closure efforts.

DRIVERS AND IMPACTS INFORMATION

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The LLBG Part B contains a closure schedule for closure of burial grounds. Current closure plan assumes FY 1995 for start of first closure.

WAC 303 619(2) - Closure performance standards.

WAC 303-6104(4) - Time allowed for closure (180 days after receiving last load in unit).

WAC 303-61-(3) - Closure plan - How, what, when of closure.

40CFR 264.110 - 120 - (Closure and post closure requirements)

40CFR 191.13 - (Containment requirements for TRU waste disposal units)

40CFR 191.14 -(Assurance requirements)

40CFR 191.16 - (Groundwater protection requirements)

WAC 173-303-610(2)(a) - (Performance standards to minimize landfills)

WAC 173-303-645(1) and (12) - (Releases from SMU's)

WAC 173-303-283 -(Performance standards), which prohibits degradation of groundwater or releases to the environment. Breached drums could cause violation.

DOE Order 5820.2A - (Performance objective basis closure)

REGULATORY KEY ISSUES:

Institutional control and the future mission of the Hanford site remain an issue. Due to the closure proximity of facilities in the 200 Areas, utilization of land for facilities such as the Waste Receiving and Processing (WRAP) will impact the current closure schedule. The closure schedule contained in the LLBG Part B permit will need to be re-negotiated.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The planning and target case funding are the same.

CONCERNS AT PLANNING LEVEL:

None.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development is required, however technology such as dynamic compaction and void space consolidation will need to be demonstrated under Hanford conditions.

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AF

SUBACTIVITY TITLE: TRU TRENCH CHARACTERIZATION

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3130020		TOTAL
TOTAL		1965
DIRECT FTE		1965
		10

TARGET CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020		2039	2458			1965	1965	1636	962	1054
CE 35EW31302		632	0			0	0	0	0	0
TOTAL		2671	2458	0		1965	1965	1636	962	1054
DIRECT FTE		18	15	0		10	10	9	6	6

PLANNING CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020		2039	2912			2182	2182	2124	1701	1703
CE 35EW31302		632	0			0	0	0	0	0
TOTAL		2671	2912	0		2182	2182	2124	1701	1703
DIRECT FTE		18	16	0		10	10	10	8	8

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The purpose of this activity is to examine and analyze the retrievably stored Transuranic (TRU) solid waste at the Hanford site, including records of generation and of waste contents, to verify its attributes and condition. This includes necessary equipment design, fabrication, and testing to support the Waste Characterization activities. The scope includes determining the condition of deteriorating retrievably stored Transuranic (TRU) waste containers in the 200 Area Burial Grounds located on the Hanford site. Total burial ground inventory contains over 500 kgs of plutonium, with the potential for releases to the surrounding environment. The scope also includes records examinations and computerized mapping of the waste containers and contents to ensure as much previously generated waste contents data as possible is collated and analyzed to provide baseline waste characterization data.

The baseline waste characterization information will support and verify design of retrieval and treatment facilities needed to implement requirements specified in DOE Order 5820.2A, The Hanford Environmental Impact Statement Record of Decision, and to meet dates stipulated by the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement), and the spent fuel vulnerability plan of action. The information will specifically support solid TRU waste retrieval sequence and start dates, conditions to support development of safety documentation required to operate retrieval facilities, the Waste Receiving and Processing Facility (WRAP), and other solid waste projects operational requirements and waste management strategies to ensure the WRAP operational throughput rates are achieved.

This activity also funds development of capital equipment not related to construction for Non-Destructive Examination/Non-Destructive Assay (NDE/NDA). The NDE/NDA equipment will be used to characterize waste containers. Funds will be required to procure drum integrity testing equipment, which will be needed to expedite future waste container analysis.

RELATED ACTIVITIES NARRATIVE:

This activity is related to the WRAP Activity Data Sheets (ADS) #2220-1 and 2230-1 and Waste Retrieval Facility, ADS #2200-02.

KEY ASSUMPTIONS:

TRU Waste has been retrievably stored in 25 earth filled trenches since 1970. Based on studies completed by Westinghouse Hanford Company and at the Idaho National Engineering Laboratory (INEL) and Los Alamos National Laboratory (LANL), containers in direct contact with soil are assumed to have been breached. This waste is primarily contact handled TRU contaminated material, but contains some remote handled waste, spent research reactor fuel and classified wastes. The results of

investigations on stored waste may be directly applicable to retrieval/treatment of pre-1970 buried waste. This activity assumes sufficient laboratory capacity is available to provide certified waste analysis.

Current waste retrieval activities are classified as moderate hazard activities. The FY 1994 retrieval activity is based on approved safety analysis documentation and the readiness review process.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

RL Priority A1. HQ Priority 1. This activity is required to evaluate the condition of stored TRU waste, assess potential environmental contamination, and the amount of hydrogen and other flammable gases generation in stored waste containers.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

A study of existing records of retrievably stored TRU waste placed in the Low Level Burial Ground trenches has been completed. This study was termed Phase I of the TRU Pilot Retrieval Program. The succeeding phases of Pilot Retrieval are defined as Phase IIA, Phase IIB, and Phase III. Phase IIA is the inspection and retrieval of 138 vented drums of retrievably stored TRU waste. Phase IIB is similar in scope but involves 104 older unvented drums, necessitating venting of the drums prior to retrieval. Also included in Phase IIB is in situ examination of stored spent fuel containers to verify integrity. Phase III is the sampling and examination of the drum contents to allow a critical comparison with waste records.

Phase IIA National Environmental Policy Act (NEPA) documentation and the Phase II A safety analysis document have been approved by the U. S. Department of Energy-Headquarters (DOE-HQ). The Phase IIA readiness review is complete. The Department of Energy-Richland (DOE-RL) operational readiness evaluation (ORE) has begun. Authority to conduct the ORE was delegated to DOE-RL by DOE-HQ.

The Phase IIB container venting system (CVS), to retrieve, vent, and gas sample unvented drums, was fabricated in March 1993. The first phase of operational testing was completed in March 1993. The CVS operational procedures, test report, engineering drawings, design alternatives and safety documentation were delivered to four DOE sites (Lawrence Livermore National Laboratory, LANL, INEL, and the Savannah River Site) to support

equipment design for TRU container retrieval. This was selected through submittals via the Savings Through Sharing program. The CVS was also selected in June 1993 as one of five Hanford Site technologies for technology transfer to the private sector through the Tri-Cities Commercialization Project. The patent for the CVS was filed in September 1993.

To certify the CVS design as a viable system and usable at other DOE sites, a flammable gas/explosiveness testing and evaluation was conducted by the Bureau of Mines. The contract was completed with the final document and presentation given in August 1993. This demonstrated that the system was not capable of igniting stoichiometric mixtures of flammable gases. Vacuum chamber and control design modifications to reduce system costs and simplify the CVS design were completed in November 1993. The CVS explosiveness testing, coupled with the Operational Testing Procedure, will undergo a readiness review evaluation during FY 1994.

The Phase IIA and IIB progress and planning presentations were given to the Washington State Departments of Ecology and Health in May 1993, after approval by DOE-RL.

A report summarizing the pyrophoric and explosive materials potentially in the retrievably stored TRU waste was publicly released December 1992. This report provides an inventory for safety analyses involving potential flammability or explosion incidents during retrieval and subsequent waste handling.

A task was begun to prepare reports of TRU waste records from each of the eight significant generators. These reports are in greater detail than previous work and are meant to provide a best effort at process history definition. All seven reports in the total task scope have been released.

A computerized three-dimensional simulation modeling system was procured and began its initial operation. This Macintosh-based system will provide three-dimensional simulated models of waste containers exactly as they appear in the trenches in the retrievable storage units. Modeling of the first five vented drum retrieval sites was completed April 1993. Also, the computer system's memory will capture and store the waste characteristics from the Solid Waste Information and Tracking System (SWITS) for each separate container when the data link to SWITS is completed. The three dimensional system will aid in planning for waste retrieval by displaying the actual spatial configuration of waste containers. Modeling will also develop plausible accident and release scenarios for retrieval and other related projects based on container waste loading and container proximity. These scenarios will be the basis for project safety documentation development.

The above ground riser pipes penetrating the retrievable storage TRU trenches were sampled for flammable and hazardous gases. This was done to test for potential hazards prior to retrieval activities. No readings above background quantities of gases were found.

Preparations and design of an ultrasonic probe for ultrasonic inspection of stored TRU waste drum wall thickness through an inspection port in Burial

Ground 04C, Trench 1, were completed. The inspection will determine the amount of container degradation from corrosion on several drums after approximately 12 years of storage.

Characterization of corrosion degradation of stored waste containers has been continuing. Instantaneous corrosion measurement probes were inserted in two burial ground trenches in the 200 West Area to obtain baseline corrosion data of soil effects on steel. Very low rates have been measured to date, less than one mil/year (.025 mm/year). The NEPA documentation for installation of buried coupon test pieces for long-term measurement of soil corrosion, simulating drum or box disposal, has been completed. Procurement of material for buried coupon testing, and also for characterization of atmospheric corrosion in above ground storage buildings, has been completed. Specimen emplacement and initiation of coupon testing occurred in June 1993.

Investigations into techniques for more rapid and more accurate drum wall thickness measurements by PNL resulted in a report of techniques assessed. One technique, magnetic flux leakage, was chosen as the most promising and laboratory work was begun. Excellent accuracy with this technique was obtained on machined defects and experiments with full-size drums and actual corroded material will be performed next. Additionally, the commercial market was periodically surveyed for emerging techniques that may prove effective with no laboratory development required. Several were identified for demonstrations and further investigations. One magneto-optic imaging, proved to have little quantitative ability but could be useful in location of suspected defects.

Detailed container characterization by trench location was initiated to support Project W-113, full scale retrieval. Characterization of Trench 04, Burial Ground 04C was completed using examination of existing records.

A draft document characterizing the 618-11 site and its buried waste was completed June 1993. The site operated from 1962-1967 and disposed of high level wastes in caissons while TRU and LLW were disposed in caissons and trenches.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
2200-00-0070	GLOVEBOX EXAMINATION AND REPORTING COMPLETE	9/30/94	9/30/94

CURRENT YEAR (FY 1994) TASK NARRATIVE:

The in-situ inspection of retrievably stored TRU waste in burial ground trenches will begin in FY 1994. This activity (termed Phase IIA) will begin with removal of soil, tarp, and plywood materials covering the waste containers and sampling of soil for radioactivity and hazardous components. Approximately 500 drums in addition to those retrieved will be inspected in-situ with ultrasonic and visual techniques to determine extent of container degradation. Knowing extent of current degradation will allow much more accurate prediction of future degradation. Vented drums (138) will be retrieved and stored for future waste contents examinations. The waste contents examinations will verify the accuracy of the existing waste records.

The CVS will complete operational testing in FY-94. This remotely operated system is necessary to vent potentially flammable gases from drums during retrieval as part of the in-situ TRU characterization/ inspection program. Additionally, the system will allow sampling and analyses of the gases within the drum, yielding additional waste characterization information. The CVS is scheduled to be used during FY 1995 on unvented 55 gallon waste drums on the remaining retrieval and inspection sites. The CVS piercing assembly will also be evaluated for changes to allow piercing and gas sampling of large boxes (presently stored at Hanford and other sites.)

Corrosion monitoring will be continued. The electrochemical probes inserted in two trenches in April 1992 will have over two years of exposure. Atmospheric and soil corrosion measurement coupons will have over one year of exposure. The electrochemical probe placement will be expanded during FY 1994 to include more probes for broader coverage of the burial grounds. These efforts are necessary to allow defensible prediction of corrosion rates of buried and/or stored containers.

The systematic evaluation of waste records to examine decontamination and decommissioning wastes in major Hanford Site facilities will continue. Also, the characterization document on the 618-11 burial ground will be completed.

A characterization of the Burial Ground 218-W-04C, Trench 04 waste containers will be performed using the three-dimensional simulation modeling system, SWITS, and process knowledge. This trench is of interest because it is scheduled to become the first trench to undergo full scale retrieval of TRU waste. Additionally, physical characterization of the trench conditions will be performed with subsurface investigation techniques such as ground penetrating radar or similar technologies.

The safety assessment for unvented drum retrieval (Phase IIB) will be completed in FY 1994, as well as the operational readiness review and air quality permitting documentation.

Documentation necessary for opening and inspection of drums for Phase III waste characterization will be prepared in FY 1994. This will include safety documentation, permitting, transportation documentation, sampling and analysis, and storage requirements. Selection of a facility for opening and analysis of drums and contents will be completed. Necessary building and equipment modifications will begin in FY 1994. This characterization effort will significantly improve the confidence level that Hanford waste streams planned for shipment to WIPP are within the bounds of the second No Migration Variance Petition, and will significantly reduce uncertainty in the design and/or operation envelopes for the WRAP modules and full scale TRU retrieval.

Advanced drum integrity techniques will continue to be investigated. The advantages will be rapid assessment of remaining wall thickness of suspect waste drums, to facilitate decisions for subsequent handling or storage. Laboratory investigations of the magnetic flux leakage technique will be concluded and development for field deployment will be initiated if feasible. The latest technologies will continue to be surveyed to determine if applicable off-the-shelf devices are becoming available.

Records characterization of pre-1970 buried waste will be performed and compared to similar investigations for post-1970 TRU waste. This will be required to facilitate pending decisions for retrieval, treatment and disposal of such wastes.

The 85 Gallon Drum Safety Analysis Report for Packaging (SARP) for overpacking retrieved TRU waste will be completed in April 1994. Purchasing specifications and the Packaging Design Criteria are finished. The SARP will be completed upon successful testing of vendor-supplied packages.

Planning for examination of stored spent fuel in the Low Level Burial Grounds will be initiated in FY 1994. These examinations will include casks, drums, and concrete containers at three separate locations, intended to determine if storage conditions are adequate or are deteriorating.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
2200-00-0060	EXAMINE/MANAGE RINM STORED IN NON EBR-II CASKS	9/30/95	9/30/95
2200-00-0045	Examine select RINM containers as part of Pilot Retrieval Plan	9/30/95	9/30/95

BUDGET YEAR (FY 1995) TASK NARRATIVE:

The Phase IIB characterization effort for retrievably stored TRU will be carried out at 12 trench sites, as a follow-on to the Phase IIA work completed in FY 1994. Phase IIB will also look at containers of irradiated material to determine the need to expedite retrieval. 104 drums will be retrieved and stored for later contents examination. Reporting of results of investigations for Phase IIA, the first five vented drum sites, will be completed.

Phase III glovebox examinations of retrieved drums will begin in FY 1995. This will include sampling for hazardous characteristics and characterization of all waste to allow a detailed comparison to existing records.

Advanced drum integrity techniques will be utilized in the field, culminating in a system representing an advancement over ultrasonic methods now available which are slow and prone to error with significant amounts of corrosion scale.

Physical characterization of the burial grounds through inspection techniques such as ground penetration radar, to pinpoint container locations to facilitate inspection an/or retrieval operations, will be continued. Inspection of several sites in the burial grounds where TRU drums and boxes are located will be performed with a remote video camera through existing riser pipes, to augment the scope of the site in situ inspection and retrieval program. Other intrusive inspection techniques will be used if feasible.

Building and equipment modifications for Phase III, the waste contents examinations portion of the Pilot Retrieval program, will be completed. Actual opening of retrieved drums and characterization of contents will begin in FY 1995.

Corrosion data accumulation will continue in FY 1995. A comprehensive evaluation of the data and implications for continued waste storage and/or disposal will be prepared.

Pilot characterization will perform risk analysis based on the as found integrity of the container to determine whether remedial action on RINM containers must be initiated prior to the presently planned schedule, or delayed.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
2200-00-0050	CONDUCT ENGINEERING ASSESSMENT OF RINM CONTAINER LIFE	9/30/96	9/30/96
2200-00-0040	Complete Pilot Retrieval of Unvented TRU Drums	9/30/96	9/30/96

PLANNING YEAR (FY 1996) TASK NARRATIVE:

The Phase IIB drum inspection and retrieval will be complete. Drums will be stored pending Phase III examinations. A report on Phase IIB activities will be completed.

Phase III examinations will continue. A progress report will be issued.

Future characterization work will include computerized modeling of additional trenches slated for full scale retrieval, as well as nonintrusive and intrusive inspections. Inspections of pre-1970 buried waste will be initiated.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Five years accumulation of data by FY 1998 on corrosion monitoring work will allow an initial cut at a defensible baseline steel corrosion rate. Evaluation of the CVS (boxes, drums, and robotics) will be prepared for full scale retrieval and a report issued on the capability and acceptance of container venting features.

Phase III waste contents examinations including all results of sampling and analyses will be concluded in a final report.

DRIVERS AND IMPACTS INFORMATION

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The project supports Tri-Party Agreement Milestones M-18-00 and M-19-00 and Waste Storage (Project W-112) Requirements. Federal and State regulations require that hazardous waste be characterized and designated before storage, treatment, or disposal is allowed.

Characterization of TRU provides data necessary to treat or dispose of LDR wastes at WIPP.

Specific regulatory requirements include:

WAC 173-303-070 - (Waste designation)

WAC 173-303-300 - (Waste analysis)

WAC 173-303-141 - (Receive only designated waste)

40CFR 264-13(a)(1) - and 265.13(a)(1) - (Waste analysis)

40CFR 268-7(a) - (Certify LDR)

40CFR 268-9(a) - (Need waste codes)

40CFR 268-32(j)(1-2) - (Need test for corrosive and halogens)

40CFR 268-35(j) - (Need test for liquid waste)

55CFR 22669-22670 - (Periodic verification analysis)

REGULATORY KEY ISSUES:

Waste characterization and examination is needed to assess the condition of stored TRU waste and the potential for environmental contamination.

COMP/PROG BENEFITS AT PLANNING LEVEL:

Planning level is required to meet the treatment and retrieval objectives of the Solid Waste Program.

CONCERNS AT PLANNING LEVEL:

The consequences of not assessing TRU containers in-situ could delay the necessary action required to prevent waste leakage into the environment. It may also cause the acceptance of worst case scenarios on container condition and applying TRU treatment options that may be more costly, provide lower assurance/reliability of waste form and be more design intense. Acceptance of worst case TRU container scenarios may not support national waste treatment strategies or state milestones for waste retrieval and treatment and could prove to be an inefficient use of funding.

REQUIRED TECHNICAL DEVELOPMENT:

CVS robotic interface and a remote interface for the CVS will be developed and other advanced drum integrity techniques will be developed.

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INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AG

SUBACTIVITY TITLE: RMW CHARACTERIZATION AND TREATMENT

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
	340
TOTAL	340
DIRECT FTE	3

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	858	790			340	340	283	277	324
TOTAL	858	790	0		340	340	283	277	495
DIRECT FTE	3	3	0		3	3	3	3	4

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	858	1094			378	378	374	385	549
TOTAL	858	1094	0		378	378	374	385	549
DIRECT FTE	3	3	0		3	3	3	4	4

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This activity provides for characterization of Radioactive Mixed Waste (RMW). Prior to disposition of Radioactive Mixed Waste for disposal, treatment, or shipment, characterization of the waste is required to determine the dangerous waste constituents. Once the waste constituents are known, then the appropriate labeling, handling, treatment, and disposal measures may be applied per the Washington Administrative Code (WAC), the Code of Federal Regulations (CFR), the Resource Conservation and Recovery Act (RCRA), the Toxic Substance Control Act (TSCA), and the U.S. Department of Energy (DOE) Orders.

It is a requirement of the waste generator to properly characterize the generated waste component prior to shipment from the generating facility and to a treatment, storage, and disposal facility. However, there is an inventory of Radioactive Mixed Waste (RMW) that has not fully been characterized. This waste includes PCB contaminated RWM, and also is a portion of the 'backlog waste' inventory. Before further actions (treatment, storage, disposal) may be taken with this waste, final characterization will be required pursuant to regulatory requirements.

RELATED ACTIVITIES NARRATIVE:

This activity is related to Category 3 waste treatment studies (ADS 2200-0-BF), and continued mixed waste storage in the Central Waste Complex (ADS 2200-0-AB). Thermal treatment privatization (ADS 2200-0-BA) or Project W-242, 'Thermal Treatment Facility' (ADS 2250-0-AG) will provide for treatment of PCB contaminated RMW.

KEY ASSUMPTIONS:

This activity assumes that characterization of all future Radioactive Mixed Waste (RMW) will occur as the responsibility of the generator. Therefore, once the current inventory of RMW that hasn't been fully characterized is depleted, then activities associated with future RMW characterization will be at a minimum in the outyears.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

This activity is a DOE-HQ Priority 2 and an RL Priority A1.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

In 1990-1991, an evaluation of regulation requirements and disposal options was completed for PCBs. In 1992, an engineering study of Rotary Kiln and Plasma Arc PCB treatment was initiated. The draft engineering study and cost estimate was issued in 1993. A PCB Sampling plan was also finalized in 1993.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

RMW Characterization efforts center around the characterization of PolyChlorinated Biphenyls (PCB) Radioactive Mixed Waste during FY 1994. Efforts necessary to characterize this waste form include the issuance of a PCB sampling plan based upon the current inventory of PCBs, initiation of the actual sampling of the PCB inventory, and issuance of an interim PCB sampling analytical report.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

During FY 1995, efforts associated with characterization of PCB RMW will be complete through final PCB sampling activities and the issuance of the final PCB sampling analytical report. Upon completion of this effort, PCB RMW in inventory will be characterized. Additional RMW characterization efforts separate of the PCB work will continue as waste forms that haven't been fully characterized are identified.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

RMW characterization efforts will continue as waste forms that haven't been fully characterized are identified.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

RMW characterization efforts will continue as waste forms that haven't been fully characterized are identified.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Characterization of Radioactive Mixed Waste (RMW) will be required before further treatment, storage, or disposal options may be pursued.

Applicable Regulations Include:

40CFR 268.7(a) - (Certify LDR Requirements)
40CFR 761-60 - (PCB Waste Disposal Requirements)
40CFR 761-70 - (Standards for PCB Waste Incineration)
40CFR 268-42(a)(1-2) - (Thermal Treatment Requirements for Land Disposal Restricted Waste)

WAC 173-303-070 - (Designation of Dangerous Wastes)
WAC 173-303-075 - (Certification of Designation)
WAC 173-303-090 - (Dangerous Waste Characteristics)
WAC 173-303-100 - (Dangerous Waste Criteria)
WAC 173-303-140 - (Land Disposal Restrictions)
WAC 173-303-141 - (Treatment, Storage, or Disposal of Dangerous Waste)
WAC 173-303-170 - (Requirements for Generators of Dangerous Waste)

DOE Order 5400.3 - (Hazardous and Radioactive Mixed Waste Program)
DOE Order 5820.2A - (Radioactive Waste Management)

REGULATORY KEY ISSUES:

Under Land Disposal Restrictions, there is a prohibition against storage of RMW in lieu of treatment. Treatment of these wastes that haven't been fully characterized may not be pursued until proper characterization efforts have been completed.

COMP/PROG BENEFITS AT PLANNING LEVEL:

Funding at the planning level will allow for RMW characterization of wastes within the Central Waste Complex to ensure proper treatment in accordance with Land Disposal Restrictions.

CONCERNS AT PLANNING LEVEL:

Lack of funding at the planning level will result in insufficient data to ensure proper treatment. Treatment must be pursued in accordance with the prohibition against storage in lieu of treatment.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development is required.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AH

SUBACTIVITY TITLE: BURIAL GROUNDS

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO:

TPC:

TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3130020		TOTAL
CE 35EW31302		2787
TOTAL		557
DIRECT FTE		3344
		19

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	2918	2236		3009	3009	3012	3048	3272	3776
CE 35EW31302	1065	655		557	557	295	65	720	393
GP 39EW31302	0	200		0	0	0	0	0	0
TOTAL	3983	3091	0	3566	3566	3307	3113	3992	4169
DIRECT FTE	18	16	0	19	19	20	20	20	21

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	2918	2891		3398	3398	3590	3819	4027	4226
CE 35EW31302	1065	655		557	557	295	65	720	393
GP 39EW31302	0	342		0	0	0	0	0	0
TOTAL	3983	3888	0	3954	3954	3885	3885	4747	4619
DIRECT FTE	18	18	0	19	19	20	20	21	21

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This activity provides for the operation of the Hanford Solid Waste Burial Grounds. The burial grounds are located in the 200 East and 200 West areas and are used for the disposal of Low-Level radioactive waste, both Contact Handled and Remote Handled. Additional scope of work activities will be addressed in the Outyears' Task Narrative.

RELATED ACTIVITIES NARRATIVE:

Most sub activities in Activity Data Sheet (ADS) 2200-00 are related to this activity. Specifically, ADS sub-activity 2200-00-AT, provides for Field Operations Administrative support.

KEY ASSUMPTIONS:

It is assumed that the base operating activities will be fully direct funded to the planning level for this activity. If not fully funded, supplemental funding will be required from the chargeback/assessment program to maintain safe and compliant facility operations.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

RL Priority A2, DOE-HQ Priority 1, in support of ongoing waste management operations activities required to maintain safe and compliant conditions.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

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TASKS COMPLETED TO DATE:

Solid Waste Operations receives approximately 200,000 cubic feet of low-level radioactive waste each year. This waste is disposed in various trenches in the 200 East and 200 West Areas on the Hanford site.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Current year will continue to operate in the receipt of approximately 200,000 cubic feet of LLW. See Outyears' Task Narrative.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

The base program is defined in the Outyear Task Narrative below. The main purpose of Solid Waste Burial Ground Operations is to receive and dispose of solid low level waste from onsite and offsite waste generators. It is expected to dispose of 200,000 cubic feet of waste in FY95.

Consistent with DOE guidance, this activity will be provided direct funding for the base operation program. The Field Operations Administration support base program will be provided in sub-activity 2200-00-AT.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

See Outyears' Task Narrative.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

This activity provides for the operation of the Solid Waste Burial Grounds at Hanford. The Burial Grounds are currently operated under interim status per the draft Part B Permit. The Permit is currently in revision for resubmittal to the State for approval.

According to DOE guidance, the base operating program will be direct funded. The base program includes facility surveillance and monitoring, facility and equipment maintenance, personnel training and certification, facility utility costs, procurement of support equipment, TSD statutory/regulatory compliance, facility upgrades,

TSD spill prevention, Health Physics support, Quality Assurance and Control

support, waste designation, Environmental Engineering support, and Operations Administrative support will continue to be funded in sub-activity 2200-00-AT.

Future expansion of the Low Level Waste Burial Grounds is planned for the 200 West Area to provide up to 50 years capacity for the disposal of low level waste. Sampling and monitoring will be performed to verify that only low level waste is received in the expansion areas, thus eliminating the need for a RCRA Permit.

DRIVERS AND IMPACTS INFORMATION

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Involves work associated with actual disposal. Includes operators, engineers, Health Physics, and others who inspect, solve problems, provide security, and otherwise provide required management/handling of the waste. Regulatory drivers include required reports and facility planning and design. These activities are required to meet existing reporting requirements and plans for upgrades associated with changes in regulatory requirements. These regulations apply because of past practices or legacy wastes in the burial grounds and because the operation is governed by an interim status of the draft Part B Permit.

Specific Regulatory Requirements Include:

10CFR 835.101 - (Occupational Radiation Protection)

40CFR 265.15(c) - (Inspections/problems)

40CFR 265.31 - (Operation and maintenance)

40CFR 265.32 - (Required equipment)

40CFR 265.33 - (Maintenance of equipment)

WAC 173-303-283(3) - (Prevent degradation)

WAC 173-303-310(2) - (Security)

WAC 173-303-320(1-3) - (Inspections)

WAC 173-303-330 - (Training)

WAC 173-303-340 - (Preparedness)

WAC 173-303-350 - (Contingencies/emergencies)

WAC 173-303-355 - (SARA title III)

WAC 173-303-380 - (Operating record)

WAC 173-303-390 - (Reporting)

WAC 173-303-395 - (Ignitables)

WAC 173-303-400(3) - (Interim status - landfills)

DOE Order 5400.3 - (Mixed waste program)

DOE Order 5480.19 - (Conduct of operations)

DOE Order 5820.2A - (Performance assessment)

Specific Regulatory Requirements include:

40CFR 265-13(a and b) - (Waste analysis)

WAC 173-303-300(1-5) - (Waste analysis)

WAC 173-303-380 - (Operating record)

WAC 173-303-390 - (Reporting)

REGULATORY KEY ISSUES:

Disposition of legacy wastes such as TRU, spent fuel, and mixed waste remains an issue. These waste are addressed on other sub activities. Permitted mixed waste disposal, waste retrieval and performance assessment based on advanced LLW disposal capabilities are currently under development.

COMP/PROG BENEFITS AT PLANNING LEVEL:

As directed by DOE-HQ guidance, planning level direct funding will maintain continuous safe operations in compliance with regulatory requirements.

CONCERNS AT PLANNING LEVEL:

None.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required at this time.

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INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AJ

SUBACTIVITY TITLE: W-025 RMW DISPOSAL STARTUP

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3130020		TOTAL
		496
TOTAL		496
DIRECT FTE		4

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	433	459	439	57	496	483	325	381	395
TOTAL	433	459	439	57	496	483	325	381	395
DIRECT FTE	4	4	4	0	4	4	3	3	3

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	433	511	495	57	552	568	405	421	438
TOTAL	433	511	495	57	552	568	405	421	438
DIRECT FTE	4	4	4	0	4	4	3	3	3

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This activity provides funds to support operation of the doubleliner leachate collection waste disposal trench (landfill). This landfill (Project W-025) will be used for the disposal of Radioactive Mixed Waste (RMW) at Hanford. Completion of the RMW disposal landfill will alleviate the indefinite storage of mixed wastes in the Central Waste Complex (CWC) and support Environmental Restoration (ER) activities. The engineering study on handling leachate from the landfill recommended that the leachate be transported to treatment facilities in 200 East Area, however, issues associated with implementation of this recommendation are currently in the evaluation stage.

The facility is located in the 200 West Area in Burial Ground 218-W-5 and will provide disposal capacity for 270,000 cubic feet of RMW at the base case. The actual volume capacity is variable depending on the cover design and waste fill plan. Provided the waste is filled to the landfill subgrade, the volume capacity is approximately 37,000 drums (270,000 cubic feet). Engineering studies will be completed in 1994 to define the optional waste fill plan. The landfill design will allow for operation of heavy equipment and placement of heavy waste loads. Approximately 90% of the waste disposed is expected to be contact-handled (<200 mrem/hr) drums, boxes, and casks. The remaining 10% will be comprised of remote-handled equipment in a wide variety of packages and dose rates. The waste is primarily from on-site waste generators, particularly the ER program.

RELATED ACTIVITIES NARRATIVE:

This activity is related to other burial ground activities in Activity Data Sheet (ADS) including ADS 2200-00-AH (Burial Ground Operations) and ADS 2200-00-AT (Operations Administration).

KEY ASSUMPTIONS:

No additional upfront engineering work required in the target case. The landfill will be operated empty for an initial six month period to obtain performance data (leachate) and operating experience. The operation of the landfill is dependent on approval of a leachate disposal plan. The cost of actual waste disposal will be assessed to the generator.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

RL Priority A1. HQ Priority 1. The RCRA Part B Permit requires RMW disposal capacity.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

The landfill design, in accordance with the minimum technology requirements of the Environmental Protection Agency (EPA) 530-SW-85-014 has been completed. The 9090 test to demonstrate liner compatibility with the waste form has been completed, however, this test was of limited scope and severely limits waste acceptance to the landfill. Tests are currently being performed on a broader baseline to allow additional waste types to be accepted for disposal. A conceptual trench closure design has been completed. The closure design is currently being reviewed by the regulators. This trench has been included in the Dangerous Waste Permit Application for the burial grounds (DOE/RL 88-20). This activity is under interim status. DOE has approved the Preliminary Safety Analysis Report (PSAR) on the mixed waste disposal trench.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

The construction of the trench has been initiated with completion no later than June 1, 1994 (including ATP). The OTP and operating experience will be developed through September of 1994.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

The new scope of 9090 test completion, the leachate disposal alternatives evaluation and preferred option implementation to be completed by December of 1994 with waste receipts initiated in January of 1995. See Outyears Task Narrative for base program definition.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

See Outyears Task Narrative

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

This activity provides for support to the operation and maintenance of the Radioactive Mixed Waste (RMW) Landfill. The main purpose of the RMW Landfill is to receive and dispose of RMW. The trench is sized to handle a minimum of 37,000 drums of mixed waste. The trench will be monitored during its 30 year post closure period.

DRIVERS AND IMPACTS INFORMATION

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Project activities are required to achieve and maintain compliance with State and Federal regulations for the disposal of low-level RMW.

New disposal capacity is necessary to support ER activity, on-site and off-site waste receipts.

Applicable Regulations Include:

10CFR 835.101 - (Occupational Radiation Protection)
40CFR 61.92 - (Control of radionuclide air emissions)
40CFR 264.14 - (Security of a TSD facility)
40CFR 264.17 - (Requirements for ignitable, reactive or incompatible waste)
40CFR 264.175(a-b) - (Containment)
40CFR 264.176 - (Special requirements for ignitable or reactive wastes)
40CFR 264.177(c) - (Special requirements for incompatible wastes)

WAC 173-303-141 - (Receive only designated wastes)
WAC 173-303-283(3) - (Performance standards)
WAC 173-303-300 - (Waste analysis)
WAC 173-303-310(2) - (Security)
WAC 173-303-320 - (Inspections)
WAC 173-303-330 - (Training)
WAC 173-303-340 - (Preparedness)
WAC 173-303-350 - (Contingencies)
WAC 173-303-355 - (SARA III)
WAC 173-303-370 - (Manifests)
WAC 173-303-380 - (Record keeping)
WAC 173-303-390 - (Reporting)
WAC 173-303-395(1,2,4) - (Other general requirements)
WAC 173-303-400 - (Interim status standards)
WAC 173-303-630(2,5,7,8,9) - (Use and management of containers)

40CFR 268.7(a) - (Certification LDR requirements)
40CFR 268.9(a) - (Need waste code)
40CFR 268.3(j)(1-2) - (Need test for corrosive and halogens)

55FR22669-22670 - (Periodic verification analysis)

REGULATORY KEY ISSUES:

The LLBG currently operates under interim status. State approval of the Part B Permit Application is needed for final status operation.

Approval of the Part B Permit is not needed prior to construction of the trench.

COMP/PROG BENEFITS AT PLANNING LEVEL:

A contract option for the second landfill may be exercised given RL approval and budget availability no later than June of 1994. It is unlikely that up front engineering will be required.

CONCERNS AT PLANNING LEVEL:

NONE

REQUIRED TECHNICAL DEVELOPMENT:

No technology development is required.

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INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AK

SUBACTIVITY TITLE: HAZARDOUS WASTE

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
	614
TOTAL	614
DIRECT FTE	6

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	493	437			614	614	648	682	815
CE 35EW31302	20	0			0	0	190	0	0
TOTAL	513	437	0		614	614	838	682	815
DIRECT FTE	5	4	0		6	6	6	6	6

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	493	486			727	727	792	826	905
CE 35EW31302	20	0	0		0	0	190	0	0
TOTAL	513	486	0		727	727	982	826	905
DIRECT FTE	5	4	0		6	6	6	6	6

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This provides funding for the operations of a permitted 616 Non-Radioactive Dangerous Waste Storage Facility, per WAC 173-303. The 616 Building services as a centralized Hanford Facility to segregate and store dangerous wastes prior to off-site shipment for treatment/disposal. Approximately 12 to 15 times per year the waste is manifested, inspected, and shipped off-site for treatment/disposal. Currently the moratorium on dangerous waste is restricting the quantity of off-site shipments. Moratorium wastes are stored in the Central Waste Complex (CWC).

RELATED ACTIVITIES NARRATIVE:

Most sub-activities in activity data sheet 2200 are related to this activity. Specifically, ADS 2200-00-AT provides for the field operations administrative support.

KEY ASSUMPTIONS:

It is assumed that the base operating activities will be fully direct funded to the planning level for this activity. If not fully direct funded, supplemental funding may be required from the chargeback/assessment program to accommodate the waste receipts expected.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

All activities funded by this TDD will be RL Priority A2; DOE-HQ Priority 1, in support of ongoing waste management operations activities required to maintain safe conditions.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

The 616 Facility has received approximately 1000 - 2000 containers of nonradioactive hazardous waste per year, from a variety of on-site generators, to be shipped off-site for processing.

The Part B permit application has been submitted and is pending approval by the regulators. Approval of the Part B permit is expected in FY 1994. Paving of the parking lot was extended to allow safer maneuverability during loading and off-loading waste containers.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

The base program as defined in the Outyear Task Narrative is direct funded in FY 1994. A CENRTC item is being installed to facilitate a safer and more efficient way in the loading and unloading of waste containers onto trucks. Barcoding of all received waste containers will be performed in FY 1994.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

The base operating program, as defined in the Outyear Task Narrative, will continue to be direct funded for FY 1995. The field operations administration support for the 616 Facility is funded in ADS2200-00-AT.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

See Outyear Task Narrative.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

This activity provides for the operation of the 616 Non-Radioactive Dangerous Waste Storage Building. This building provides TSCA and Resource Conservation and Recovery Act (RCRA) compliant storage of non-radioactive dangerous wastes. This facility receives between 1,000 - 2,000 containers of waste each year. The facility currently operates under interim status per a draft Part B Permit Application submitted to the State. The base program consists of building surveillance and monitoring, facility maintenance and equipment calibration, personnel training and certification, waste designation, data base management, program management, quality assurance and quality control, facility utility costs, design and procurement of support equipment, TSD statutory/regulatory compliance, facility upgrades, engineering studies through development of functional

design criteria, waste acceptance criteria development and waste certification activities, and TSD spill prevention.

DRIVERS AND IMPACTS INFORMATION

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Applicable Waste Analysis Regulations Include:
40CFR 264-13(a)(1) and (a)(3-4) - (Waste analysis)
WAC 173-303-300(1-4) - (Waste analysis)

Applicable Regulations Include:
10CFR 835.101 - (Occupational Radiation Protection)
40CFR 761 - (TSCA)

WAC 173-303-630(7)(b and d)

616 must comply with terms of their RCRA/State Permit.

RCRA Permit Requirements:

WAC 173-303-280 - 400 - (Requirements for managing waste)
WAC 173-303-630 - (Container storage)

LDR (40CFR268) - waste handling must be certified for appropriate treatment
or disposal requirements.

Applicable LDR Requirements:

40 CFR 268.7(a) - (LDR analysis requirements)
DOE Order 5480.19 - (Conduct of operations)

REGULATORY KEY ISSUES:

Resolution of moratorium wastes remains an issues. Development of a
protocol to unconditionally release non-radioactive wastes needs to be
developed.

COMP/PROG BENEFITS AT PLANNING LEVEL:

As directed by DOE-HQ guidance, planning level direct funding will maintain
continuous safe operations in compliance with regulatory requirements.

CONCERNS AT PLANNING LEVEL:

NONE

REQUIRED TECHNICAL DEVELOPMENT:
No technology development required.

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OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AL

SUBACTIVITY TITLE: TRANSURANIC WASTE

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3130020		TOTAL
		1788
TOTAL		1788
DIRECT FTE		11

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	1554	1010			1788	1788	1913	1767	2110
CE 35EW31302	545	327			0	0	65	131	65
GP 39EW31302	0	200			0	0	960	1076	1175
TOTAL	2099	1538	0	1788	1788	2939	2974	3351	3551
DIRECT FTE	13	9	0	11	11	12	12	12	14

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	1554	1374			2099	2099	2607	2453	2597
CE 35EW31302	545	327			0	0	65	131	65
GP 39EW31302	0	200			0	0	960	1076	1175
TOTAL	2099	1901	0	2099	2099	3632	3660	3837	3939
DIRECT FTE	13	10	0	12	12	14	14	14	14

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This work supports the operation and maintenance of the Transuranic (TRU) Storage and Assay Facility (TRUSAF) located in the 224-T Building. Newly generated Contact-Handled Transuranic (CH-TRU) waste drums are sent to TRUSAF for X-Ray examinations and TRU content assay. The TRUSAF processes approximately 1,000 to 2,000 drums of CH-TRU per year. TRUSAF provides the final quality assurance overcheck necessary to assure the waste complies with the Waste Isolation Pilot Plant (WIPP) Waste Acceptance Criteria. The assay system is capable of distinguishing whether the TRU content is above or below the 100 nCi/g classification for low-level waste, thereby reducing the number of drums requiring interim storage. TRUSAF also provides mixed waste storage in accordance with WAC 173-303.

RELATED ACTIVITIES NARRATIVE:

Most subactivities in Activity Data Sheet (ADS) 2200 are related to this activity. Specifically, ADS 2200-00-AT provides for the field operations administrative support.

KEY ASSUMPTIONS:

It is assumed that the base operating activities will be fully direct funded to the planning level for this activity. If not fully direct funded, supplemental funding may be required from the chargeback/assessment program to accommodate the waste receipts expected.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

All activities funded by this TDD will be RL Priority A2; DOE-HQ Priority 1, in support of ongoing waste management operations activities required to maintain safe conditions.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

CAPITAL EQUIPMENT TRANSURANIC WASTE
CAPITAL EQUIPMENT TRANSURANIC WASTE

TASKS COMPLETED TO DATE:

TRUSAF examines over 1,000 drums of TRU and suspect TRU wastes each year. Waste are subjected to X-Ray and assay to verify drums contents. Wastes which assay out as low-level waste are disposed. Certified TRU waste are placed into storage. A general roof inspection was performed to assess current integrity and future improvement planning. The TRUSAF steam upgrade was completed and the facility is currently heated. Small project efforts have completed the paving of the parking lot, installation of perimeter fencing, and the RTR (X-ray) imaging chain upgrade. The assayer software and computer upgrade was completed.

The Part B permit application has been submitted and is pending approval from the regulators.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

TRUSAF operations will continue to receive, X-Ray, assay, and store or dispose of 1000 to 2000 drums of transuranic and low level waste this year.

The base operating program, as defined in the Outyears' section, received partial funding in FY 1994. Capital and Small Project funding will allow for upgrading the X-Ray machine, control room, building electrical, and outdoor paving. An engineering study will be performed to determine the upgrades required to extend the operation of 224-T for twenty years and the possibilities of converting unused portions of the building for additional TRU waste storage.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

Receive, X-Ray, assay, and store or dispose of transuranic and low level wastes. The base program, as defined in the Outyears' section is expected to be fully direct funded. Waste receiving costs will be funded via the chargeback/assessment program. The Field Operations Administrative funding will be direct funded as defined in TDD, 2200-00-AT.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

See Outyear Task Narrative.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
2200-00-0080	TRUSAF UPGRADE - REPLACE ROOF AND REPAIR WALLS	9/30/97	9/30/97
2200-00-0110	TRUSAF UPGRADES	9/30/98	9/30/98
2200-00-0105	TRUSAF UPGRADES	9/30/99	9/30/99
2200-00-0100	TRUSAF UPGRADES	9/30/00	9/30/00

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

This activity provides for the operation of the Hanford TRUSAF Building. TRUSAF provides Resource Conservation and Recovery Act (RCRA) compliant storage of TRU mixed wastes and certified TRU wastes. The facility currently operates under interim status, per a draft Part B Permit submitted to the State.

The base operating program should continue to be fully direct funded. The base program consists of facility surveillance and monitoring, building and equipment maintenance, quality assurance and quality control, Health Physics and Safety Support, TSD statutory/regulator compliance, facility upgrades, waste acceptance criteria, TSD spill prevention, facility utilities costs, document control costs, procurement of support equipment, personnel training and certification, and operation activities in preparation to receive waste. The Field Operations Administration support is funded in TDD 2200-00-AT.

Since the future of the Waste Isolation Pilot Plan (WIPP) is uncertain, TRUSAF will have to prepare an upgrade and extended operation scenario in order to maintain regulatory compliance continuation (Refer to TDD 2200-02-AH).

DRIVERS AND IMPACTS INFORMATION

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

This activity involves the maintenance and operations of the 224-T TRUSAF, which is a RCRA regulated waste storage facility. As such, the facility must be maintained and operated in accordance with state and federal regulations. These regulations include requirements for reliable and operational fire control equipment.

Applicable Regulations Include:

10CFR 835.101 (Occupational Radiation Protection)
40CFR 264-31 - (Design and operation of facility)
40CFR 264-33 - (Testing and maintenance of equipment)
40CFR 264-32(c) - (Fire extinguishing systems)

Failure to satisfy these requirements can result in an enforcement action by the State or EPA.

Permit Requirements:

WAC 173-303-280 - 400 - (Management of waste)
WAC 173-303-280 - (Treatment facilities)
WAC 173-303-283(3) - (Prevent degradation)
WAC 173-303-300(1-5) - (Waste analysis)
WAC 173-303-310(2)(a-c) - (Security)
WAC 173-303-320(1-3) - (Inspections)
WAC 173-303-330 - (Training)
WAC 173-303-340 - (Preparedness)
WAC 173-303-350 - (Contingencies/emergencies)
WAC 173-303-355 - (SARA Title III)
WAC 173-303-370 - (Manifests)
WAC 173-303-380 - (Operating record)
WAC 173-303-390 - (Reporting)
WAC 173-303-395 - (Ignitables)
WAC 173-303-400(3) - (Interim status standards)
WAC 173-303-630 - (Container storage)

LLW Requirements Include:

40CFR 191.03 - (Management of TRU)

DOE Order 5400.3 - (Mixed waste program)
DOE Order 5480.19 - (Conduct of operations)
DOE Order 5820.2A - (Radioactive waste management)

REGULATORY KEY ISSUES:

If the Waste Isolation Pilot Plant (WIPP) site does not open, additional permitted storage space will be required along with the implementation of plans to perform the necessary upgrades to 224-T so that it will be able to continue safe and compliant operations.

COMP/PROG BENEFITS AT PLANNING LEVEL:

As directed by DOE-HQ guidance, planning level direct funding will maintain continuous safe operations in compliance with regulatory requirements.

CONCERNS AT PLANNING LEVEL:

None.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required.

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OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AM

SUBACTIVITY TITLE: TRUSAF CLOSURE

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020	0	0	0		0	252	239	272	0
TOTAL	0	0	0	0	0	252	239	272	0
DIRECT FTE	0	0	0	0	0	1	1	1	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020	0	0	0		0	638	1262	1910	0
TOTAL	0	0	0	0	0	638	1262	1910	0
DIRECT FTE	0	0	0	0	0	3	6	11	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This activity, which starts in 1997, provides engineering and design for final closure of the TRUSAF Building. This building, originally built in 1944, provides Transuranic (TRU) waste storage.

RELATED ACTIVITIES NARRATIVE:

This activity is related to subactivity 2200-00-AL, TRU Waste Storage in TRUSAF and 2250-00-AH, TRUSAF Life Extension.

KEY ASSUMPTIONS:

This subactivity assumes the Waste Isolation Pilot Plant (WIPP) opens and TRU waste currently stored in TRUSAF is shipped to the repository starting in 2002.

ACTIVITY BY PRIORITY:

All activities funded by this TDD will be RL Priority B1 and DOE-HQ Priority 2, to ensure compliance with environmental laws and permit requirements.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

None.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:
No Activity.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:
No Activity.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:
No Activity.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

This activity to provide final closure of TRUSAF starts in 1997.

An

engineering study will be completed to determine the most cost effective way to provide final closure on the Resource Conservation and Recovery Act (RCRA) permitted storage facility. In 1998 the final closure plan will be submitted to the State as part of a Part B permit revision. The closure plan will identify the closure schedule based on the status of WIPP.

DRIVERS AND IMPACTS INFORMATION

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Closure of RCRA permitted storage facilities is required by Federal and State law and DOE Order 5820.2A.

Applicable Regulations Include:

WAC 303-619(2) - (Closure performance standards)

WAC 303-6104(4) - (Time allowed for closure (180 days after receiving last load in unit))

WAC 303-61(3) - (Closure plan - How, what, when of closure)

40CFR 264-110 - 120 - (Closure and post closure requirements)

40CFR 191-13 - (Containment requirements for TRU waste disposal units)

40CFR 191-14 - (Assurance requirements)

40CFR 191-16 - (Groundwater protection requirements)

WAC 173-303-645(1-12) - (Releases from SMU's)

WAC 173-303-283 - (Performance standards), which prohibits degradation of groundwater or releases to the environment.

Breached drums could cause violation.

REGULATORY KEY ISSUES:

This activity assumes the WIPP site opens and operates to receive certified TRU wastes for disposal.

COMP/PROG BENEFITS AT PLANNING LEVEL:

Compliance and programmatic benefits at the planning level will allow closure as required by Federal and State law and DOE Order 5820.2A.

CONCERNS AT PLANNING LEVEL:

None.

REQUIRED TECHNICAL DEVELOPMENT:
No technology development required.

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AN

SUBACTIVITY TITLE: SOLID WASTE PERMITTING

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3130020		TOTAL
TOTAL		987
DIRECT FTE		987
		7

TARGET CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020		1015	948	998			998	831	1112	1141
TOTAL		1015	948	998	0		998	831	1112	1141
DIRECT FTE		7	7	7	0		7	6	8	7

PLANNING CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020		1015	1055	1222			1222	1259	1429	1472
TOTAL		1015	1055	1222	0		1222	1259	1429	1472
DIRECT FTE		7	7	7	0		7	7	8	8

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This activity support the preparation and approval of the Resource Conservation and Recovery Act (RCRA) Dangerous Waste Permit Application, Closure Plans, and sampling activities for existing and new Solid Waste Management treatment, storage, and disposal units. This includes negotiating resolution to Notice of Deficiencies (NOD) issued by the regulatory agencies and addressing comments received during the public review process. Facilities include, Ashpit Demolition Site, Hanford Patrol Academy Demolition Site, E-8 Borrow Pit, the Waste Receiving and Processing (WRAP) Facility, and the Central Waste Complex (CWC).

RELATED ACTIVITIES NARRATIVE:

This activity is related to all solid waste activities requiring RCRA permits or closure plans (Activity Data Sheet #2200, 2220, and 2230) including ADS 2200-00-AE, Burial Ground Closure; 2200-00-BK, Environmental Permit Support Closure; and 2200-00-AM, TRUSAF Closure.

KEY ASSUMPTIONS:

This activity assumes the State/Environmental Protection Agency (EPA) will approve permits and closure plans according to the schedule outlined in the Tri-Party Agreement.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

All activities funded by this TDD will be RL Priority B1, DOE-HQ Priority 2, in support of formal agreements with State and local agencies.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

The 616 Non-Radioactive Dangerous Waste Storage Facility (NRDWSF) Dangerous Waste Part B Permit Application was submitted to the U.S. Department of Ecology (Ecology) and the EPA on July 31, 1989, meeting Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Milestone

M-20-02. The LLBG Dangerous Waste Part B Permit Application was submitted to Ecology and the EPA on December 31, 1989, meeting Tri-Party Agreement Milestone M-20-06. The CWC Radioactive Mixed Waste Storage Part B Permit and the CWC-WRAP Part B Permit Applications were submitted on October 31, 1991, meeting the Tri-Party Agreement Milestones M-20-05 and M-20-12. These Part B Permit Applications are in the NOD stage.

The TRUSAF Part B Permit Application was submitted by June 30, 1992. Resolution of NOD comments from the regulators will continue.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

The majority of the permit application and closure plan preparation will be completed and primary activities shift to resolution of NODs. Final activities required for resolution of NOD comments should result in approved permits. New permits (no Tri-Party Agreement Milestone established) will need to be started for Solid Waste Facilities WRAP 2B and the Solid Waste Thermal Treatment Facility. These facilities are funded in ADS 2250.

The Hanford site-wide permit will be issued in the third quarter of FY 1994. Impacts to the facility specific permits will be identified.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

Continue to resolve comments and seek permit approvals and final operating status from Ecology. Significant portions of the permits will need to be rewritten.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Continue to resolve comments and seek permit approval and final operating status from Ecology. Permits will be revised and updated annually.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

The permit process will take multiple years to complete on large treatment projects such as the WRAP and Thermal Treatment Facilities because all necessary design information will not be available at the time of permit

submittal. As the project progresses, this information will be incorporated into the permit. All activities included are necessary to meeting milestones established in the Tri-Party Agreement.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Completion of RCRA Permit Applications is required by State and Federal law. The time period to submit these permit applications to the State and EPA are specified in the Tri-Party Agreement. The Tri-Party Agreement Milestones affected include M-20-02, M-20-05, M-20-06, M-20-12, M-20-23, M-20-25, M-20-26, and M-20-28.

Failure to submit permit applications could result in restrictions to operations, total shut down of operations at the affected facility or denial to initiate construction of a new facility.

Applicable Regulations Include:

WAC 173-303-800(2-4) - (Permit requirements for Dangerous Waste Facilities)

40CFR 270-10(e)(5) - (Existing facilities)

40CFR 270-10(f)(1) - (New facilities)

DOE Order 5400.3 - (Mixed waste programs)

DOE Order 5820.2A - (Radioactive waste management)

REGULATORY KEY ISSUES:

State/EPA approval of permits remains an issue. Delays in approving the permits will cause delays in many Solid Waste Facilities. A key WRAP planning assumption is that WRAP will be granted interim status or interim status expansion. Either status will enable WRAP construction to proceed without a finalized Part B Permit. If finalization of the Permit is required prior to construction, WRAP construction schedules will be impacted.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The workscope in the target and planning funded levels are the same.

CONCERNS AT PLANNING LEVEL:

The draft Part B permits have been through many review cycles. Required funding will decrease when permits are approved by Ecology. However it is uncertain when the permits will be approved. Funding will be required to maintain the permits through the life of the facility.

REQUIRED TECHNICAL DEVELOPMENT:
No technology and development required.

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OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AP

SUBACTIVITY TITLE: SAFETY DOCUMENTATION

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
TOTAL	2862
DIRECT FTE	2862
	22

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	4199	2765			2862	2862	2065	2135	2167
CE 35EW31302	25	0			0	0	0	0	0
TOTAL	4224	2765	0		2862	2862	2065	2135	2167
DIRECT FTE	26	22	0		22	22	17	18	17

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	4199	3078			3181	3181	2630	2616	2505
CE 35EW31302	25	0			0	0	0	0	0
TOTAL	4224	3078	0		3181	3181	2630	2616	2505
DIRECT FTE	26	22	0		22	22	19	18	18

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This activity includes preparation of three Master Safety Analysis Reports (SAR) on Solid Waste Management activities at the Hanford Site. The first Master SAR will be for disposal and is a revision of the outdated Low-Level Burial Grounds (LLBG) SAR (1984). The second Master SAR will be for storage and includes the Radioactive Mixed Waste Storage Facilities in the Central Waste Complex and the TRUSAF Building. The third Master SAR will cover waste treatment in the Waste Receiving and Processing (WRAP) Facilities. These Master SARs on Treatment, Storage, and Disposal will address all aspects of Solid Waste Management.

It is expected that consolidation of safety documentation on solid waste activities into three Master SARs will reduce repetitive and redundant activities. For example, the Hazard Classification, Preliminary Safety Evaluation and Preliminary Safety Analysis Report (PSAR) currently completed on each project should be integrated into the Master SARs.

All Hanford solid waste treatment, storage, and disposal facilities with the exception of the Nonradioactive Dangerous Waste Storage Facility (a non-nuclear facility) are classified as non-reactor nuclear facilities. Most solid waste facilities are considered low hazard. Some facilities, such as waste characterization and retrieval, are moderate hazard.

The DOE Orders along with other requirements are implemented by WHC in WHC-CM-4-46, Nonreactor Facility Safety Analysis Manual. All solid waste management safety documentation is in need of revision. For example, the LLBG SAR was issued in 1984. A Master Disposal SAR is expected to save DOE money by consolidating disposal activities into one document and eliminating the need to repeat sections such as site description, etc. This is also true for the treatment and storage Master SARs.

RELATED ACTIVITIES NARRATIVE:

CWC Operations (2200-00-AB), Burial Ground Operations (2200-00-AH), Hazardous Waste Operations (2200-00-AK), and TRUSAF Operations (2200-00-AL) are related to this activity.

KEY ASSUMPTIONS:

Funding levels in this Activity Data Sheet are for creation of the Master SAR approach. If this approach is abandoned in lieu of an individual project/activity SAR, then a 30-40% increase in funding will be required.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

This activity is DOE-HQ Priority 1 and RL Priority A2. Safety analysis documentation is required to define the safe operating envelope for non-reactor nuclear facilities.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Safety documentation has been completed in support of project upgrades. Revision of Central Waste Complex safety documentation is in the review process. The DOE has approved a preliminary version of the Final Safety Analysis Report (FSAR) on operation of the Central Waste Complex. The radioactively mixed waste disposal trench PSAR has also been approved by DOE.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
2200-00-0095	FUNCTIONAL APPROVED LOW-LEVEL BURIAL GROUND SAFETY ANALYSIS REPT	9/24/94	9/24/94

CURRENT YEAR (FY 1994) TASK NARRATIVE:

Preparation and review of the Solid Waste Burial Ground (SWBG) Master SAR continues through 1994. Preparation and review of the Master Storage SAR also continues through 1994.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
2200-00-0090	FUNCTIONAL APPROVED SOLID WASTE STORAGE SAFETY ANALYSIS REPORT	3/13/95	3/13/95

BUDGET YEAR (FY 1995) TASK NARRATIVE:

Preparation and review of the SWBG and Solid Waste Storage Master SARs completes early in FY 1995. The Functional approval cycle of these two SARs is initiated in early FY 1995 and the approval cycle continues through 1995. Safety Environment Advisory Council, RL and DOE-HQ approval is expected to take as much as 18 months.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Functional approval of the SWBG and the Solid Waste Storage Master SARs will be obtained. Engineering studies to evaluate the needs for a consolidated Master Treatment SAR are initiated. Efforts will continue on support to specific safety issues such as receipt of new waste packages, waste forms, or concentrations outside the safety envelope.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

During the five year period all Solid Waste Management Safety Documentation will be brought into compliance with the Department of Energy requirements.

The Master Treatment SAR preparation and approval cycle will be completed in this period. Once issued, the safety documents will be updated annually and maintained current with respect to solid waste facilities. Future SAR work for new projects such as the thermal treatment facility will be evaluated on an ongoing basis.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Safety Analysis Report (SAR) preparation.

Facilities that manage hazardous waste are required to minimize the possibility of fire, explosion, or unplanned release of hazardous waste. The Safety Analysis is used to develop accident scenarios so that appropriate Safety Classes are built into the design and operations.

The National Environmental Policy Act (NEPA) requires that planned projects assess their impact on the environment and health safety. The Hazard Class portion of the Safety Analysis develop the risks of a project, and becomes a supporting document to the NEPA document.

Applicable regulations include:

40CFR 264-31 or 265-31 - (Design and operation of facility)

Subchapter 1. Section 102(c) of the National Environmental Policy Act of 1969

WAC 197-11-030 and -700 - (SEPA)

WAC 173-303-803 - (Ecology's SEPA)

DOE Orders 4700.1 and RL 4700.1: Project Management System, defines timing when safety analysis for projects are required.

DOE Order 6430.1A: General Design Criteria, requires safety analysis for new facilities.

DOE Orders 5480.5 and RL 5480.5: Safety of Nuclear Facilities, requires safety analysis for nuclear facilities and defines DOE responsibilities.

DOE Orders 5481.1B, 5481.1B Change 1, and RL 5481.1: Safety Analysis and Review System, defines the SAR approval process. This order determined why the waste characterization SAR is to be approved by DOE-HQ and why the Irradiated Fuel SAR was approved by RL.

DOE Order 5484.1: Environmental Protection, Safety and Health Information Reporting Requirements, requires analysis of ability to comply with environmental and health protection requirements.

DOE Order 5480.21: Unreviewed safety questions defines the process to resolve safety issues.

DOE Order 5480.22: Technical safety requirements provides safe operating limits for each facility.

DOE Order 5480.23: Nuclear Safety Analysis reports defines the content of safety analysis documentation.

REGULATORY KEY ISSUES:

Additional requirements for safety documentation have been issued by DOE in 1992/1993. Hence, it is expected that SAR preparation costs will increase in subsequent years.

COMP/PROG BENEFITS AT PLANNING LEVEL:

If WHC does not proceed with the Solid Waste Master SAR approach, it is estimated it will cost approximately 30 - 40% more than what is currently requested in the five year plan. The Master SAR approach groups similar facilities and activities into one document thus alleviating the need to maintain multiple SAR documents. This approach also simplifies and reduces the cost of safety documentation for projects that are modifications or extensions of existing facilities.

CONCERNS AT PLANNING LEVEL:

The implementation plan for compliance with the new DOE Order 5480.21, 5480.22, and 5480.23 has been submitted but not approved by DOE. DOE approval of the interim safety basis for solid waste facilities will be required for compliance with the new DOE orders.

WHC's independent safety review group has audited the facilities and found the documentation to be deficient. Schedules are in place to rectify these deficiencies. If Solid Waste Programs does not meet this schedule, activities or abilities to handle waste may be curtailed or limited.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required.

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INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AQ

SUBACTIVITY TITLE: NEPA STRATEGY

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
	526
TOTAL	526
DIRECT FTE	2

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	464	438	526			526	438	429	500
TOTAL	464	438	526	0		526	438	429	500
DIRECT FTE	2	2	2	0		2	2	2	4

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	464	2785	2836			2836	2921	805	829
TOTAL	464	2785	2836	0		2836	2921	805	829
DIRECT FTE	2	4	4	0		4	4	4	4

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

Current Hanford National Environmental Policy Act (NEPA) documentation does not fully address Low-Level Waste (LLW) disposal on the Hanford Site. Solid waste performance assessment will qualify which radionuclides and at what concentration are suitable for disposal. This information will be needed to address the environmental long-term impacts of solid waste disposal. Consequently an Environmental Impact Statement (EIS) may be required on Hanford solid LLW disposal.

This activity also funds specific NEPA related reviews on new solid waste facilities or activities. These NEPA reviews include environmental assessment, supplemental analysis, finding of no significant impact, and categorical exclusion documents. Each activity such as adding low flashpoint storage modules to the Central Waste Complex require a NEPA review prior to construction or installation. An integrated NEPA strategy on solid waste activities will be developed and maintained.

RELATED ACTIVITIES NARRATIVE:

Activity Data Sheet (ADS) 2200 sub activities.

KEY ASSUMPTIONS:

Assumes an EIS will not be required for the continued disposal of LLW at the Hanford Site.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

All activities funded in this TDD will be RL Priority A2, DOE-HQ Priority 2. Activity is required to comply with the National Environmental Policy Act.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

A preliminary strategy document for Preparation of a Programmatic Environmental Impact Statement for Solid Waste has been prepared by Los Alamos Technical Associates (LATA) under contract. Additional work is currently underway including a scoping effort and schedule for the activity.

Specific NEPA documents recently approved include the supplemental Analysis for WRAP Module 1 and numerous Categorical Exclusions including unvented drum retrieval, corrosion testing, fencing, and lighting at the CWC and other similar projects.

Several other NEPA documents, not yet approved, have been written, including an Environmental Assessment (EA) for Special Case Waste and a combined EA for Projects W-112/W-113. A Supplemental Analysis for WRAP Module 2A is near completion.

SCHEDULE INFORMATION

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

No direct funding in 1994.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

Activities in 1995 include development and maintenance of a NEPA strategy and NEPA program plan for solid waste facilities that complies with DOE methodology for completing NEPA reviews. NEPA reviews in 1995 may include environmental assessments or C-2 analysis on new solid waste activities. Continue close interface with RL and DOE-HQ will be provided.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

In the planning case an EIS on continued LLW disposal at Hanford will be started. The target case does not provide funding for an EIS. An EIS should be prepared to update the NEPA coverage on the 218-W-5 and other existing burial grounds at Hanford.

The solid waste NEPA strategy and plan will be assessed, revised, and an implementation plan developed.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

In the Planning Case, an EIS will be completed for the continued disposal of LLW on the Hanford Site. Currently there is no specific NEPA documentation on Hanford solid LLW disposal. The NEPA process will evaluate alternatives leading to a record of decision regarding LLW disposal. Solid Waste Management will maintain an integrated plan for dealing with NEPA documentation requirements. The solid waste NEPA

strategy and plan will be assessed annually and revised when necessary.

DRIVERS AND IMPACTS INFORMATION

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Applicable Regulatory Requirements:

National Environmental Policy Act 40CFR 1500-1 - (NEPA purpose)

REGULATORY KEY ISSUES:

Failure to provide adequate NEPA coverage for Low-Level Waste disposal may result in cessation of operations.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The target case provides no funding for completion of an Environmental Impact Statement (EIS) for continued LLW disposal at Hanford. If completed, an EIS would quantify and qualify the impacts of continued disposal of low level waste at Hanford. Burial Ground operations is expected to continue until at least the year 2050.

CONCERNS AT PLANNING LEVEL:

The planning level assumes an EIS for LLW disposal will be started in 1995.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AR

SUBACTIVITY TITLE: W-272 SPECIAL CASE WASTE STORAGE

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3130020		TOTAL
GP 39EW31302		400
TOTAL		300
DIRECT FTE		700
		4

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	644	214		400	400	421	412	179	425
CE 35EW31302	3360	665		0	0	0	0	0	653
GP 39EW31302	300	0		300	300	0	0	299	0
TOTAL	4304	879	0	700	700	421	412	478	1078
DIRECT FTE	4	3	0	4	4	4	4	2	3

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	644	302		478	478	545	514	211	525
CE 35EW31302	3360	665		4058	4058	665	0	4058	665
GP 39EW31302	300	0		300	300	0	0	300	0
TOTAL	4304	968	0	4836	4836	1210	514	4569	1191
DIRECT FTE	4	3	0	4	4	4	4	2	4

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This activity funds design and construction of a waste storage unit to provide interim dry storage of special case wastes from hot cells (building 324, 325, etc.). Hot Cell clean out is required to resolve a safety issue and to support laboratory analysis for Tank Farm waste. Location of the facility will be in the vicinity of the Central Waste Complex (CWC) at Hanford. Special case wastes to be stored in this unit include wastes that cannot be shallow land disposal such as Greater than Category III low-level wastes (defined in 10CFR 61.55), high-level wastes converted to glass, and specific inventories of spent fuel.

The waste storage unit to be located in the 200 West Area is expected to receive multiple storage casks containing up to 6 million curies of radioactivity. Currently, the facility is envisioned to consist of a rectangular concrete or asphalt pad approximately 200 feet on each side. This facility is being constructed as an interim action to the Hanford Fuels EIS. This facility will address near-term needs such as cleanout of the 300 Area Hot Cells.

This activity funds the procurement of all the equipment required to transport special case solid waste from the 300 Area to 200 Area. In the planning case, it also funds the continued procurement of storage modules. The transportation equipment and storage modules must meet the criteria of 10 CFR 71 and 72.

The definition of special case waste is as follows: Greater-Than-Class-III waste, other remote-handled low-level waste that can not be shallow land disposed, high-level waste, or spent fuel. Presently, the 300 Area's special case solid waste is stored in 324 and 325 building's hot cell. Removal of this waste must occur, before these cells will be utilized in support of other activities required for Hanford Site cleanup. Transloading the PWR Core II (spent fuel) in T Plant from wet storage to dry storage on this pad has also been planned.

The initial storage modules will be placed on an 8,000 FT² concrete or asphalt pad. Construction of this pad will be funded as a 1994 GPP. The pad will be located near the Southwest corner of the Central Waste Complex in the 200 West Area.

RELATED ACTIVITIES NARRATIVE:

This activity is related to the CWC and other solid waste facilities (Activity Data Sheet) ADS #2200; and the T Plant facility (ADS 2320)

KEY ASSUMPTIONS:

At the target level, this activity assumes that the generators will fund and procure the storage casks as needed.

This activity assumes the initial special case waste received, such as spent fuel regulated under the Atomic Energy Act, are not Resource Conservation and Recovery Act (RCRA) wastes. The special case waste received in the outyears will be RCRA wastes.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

All activities funded by this TDD will be RL Priority A2, DOE-HQ Priority 1. NRC approved fuel storage casks provide safe storage of spent fuel.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

W-272 SPECIAL CASE WASTE
W-272 SPECIAL CASE WASTE
W-272 SPECIAL CASE WASTE

TASKS COMPLETED TO DATE:

The Functional Design Criteria (FDC) document is complete. The Preliminary Safety Evaluation (PSE) and Hazard Classification are approved. An Environmental Assessment (EA) is near completion with submittal to the Department of Energy-Richland in 1994. A request for proposal is due to be released to bidders in 1994. The bid must cover both a transport and storage system for spent fuel and aforementioned waste.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Funding in FY 1994 will be used to design the storage pad. Definition of the storage modules will be finalized. Procurement specifications for the equipment necessary for transloading the high activity wastes will be completed. NEPA documentation will be submitted to DOE along with the safety documentation.

Activities also include development of category 3 LLW disposal criteria at Hanford. Category 3 LLW are high activity LLW that are suitable for shallow land disposal after stabilization or placement in a high integrity container. The category 3 disposal criteria will be included in the Solid Waste Acceptance Criteria document.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

The concrete storage pad will be constructed in 1995 as a small project. Readiness review activities will be initiated to support operations. Capital equipment money will be used to purchase NRC equivalent dry fuel storage casks. The initial complement of casks will be used to support cleanout of the hot cells in the PNL laboratories in the 300 Area.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Work will continue in support of cask procurement, including review of documentation and license information.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Following an operational readiness review, wastes will be received at the unit for storage. The casks are expected to be NRC equivalent dry fuel storage casks. The unit will receive wastes for a number of years until filled. The unit is expected to store wastes for approximately 50 years

until disposal capacity for the waste is identified. Certain wastes will be disposed to the repository at the Waste Isolation Pilot Plant (WIPP). Some wastes are expected to be disposed to the high-level repository currently being developed in Nevada.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Supports Tri-Party Agreement milestone M-10-00 and M-03-00. Transferring hot cell waste to a storage unit will allow SST cores to be analyzed per Tri-Party Agreement milestone and state and federal regulations.

The construction of a waste storage unit for the Special Case Waste from hot cells is required to minimize safety concerns and comply with DOE Order 5820.2A, and the Environmental Radiation Protection Standards for Management and disposal of special Nuclear Fuel, high-level, Greater Than Category-III Low-Level, and Transuranic (TRU) waste.

Applicable Regulations Include:

40CFR 265-13 (Waste analysis)
40CFR 191-03(b) (Management of TRU)
40CFR 61-92 (Radiation air emissions)
40CFR 71 (Spent Fuel Storage Requirements)
40CFR 72 (Spent Fuel Transportation Requirements)

DOE Order 5820.2A - (Radioactive waste management) DOE Order 6430.1A - (Design criteria)

REGULATORY KEY ISSUES:

There is an issue to relocate the rather sizeable radiological inventory from the 300 Area to the 200 Area waste storage facilities located on the Hanford Site. There is a need to clean up the Hot Cells to support other Hanford Tri-Party Agreements. Relocation of the wastes to outer areas at the Hanford Site will increase the distance to the nearest population center and lower the overall safety risk. Cost of dry fuel storage is significantly less than wet storage.

This activity assumes wastes such as spent fuel are not regulated under RCRA.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The target and unconstrained fund levels are the same except in 1996 when no target funding is available for the purchase of the storage modules. It is assumed that the storage modules would be funded by the generators at the target level.

CONCERNS AT PLANNING LEVEL:

Timely completion and approval of the NEPA EA documentation at the U.S. Department of Energy-Headquarters remains to be the critical path for this activity. Activities such as construction of the storage pad could start as early as 1994 if NEPA documentation were complete and capital funding available. Completion of the Hanford Fuels EIS and subsequent Record of

Decision may change the outyear scope of this activity.

REQUIRED TECHNICAL DEVELOPMENT:
No technology development.

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OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AS

SUBACTIVITY TITLE: SWITS

INSTALLATION: HANFORD

CATEGORY: WM

DEFENSE/NON-DEFENSE:

VERSION DATE: 5/12/93

PROGRAM: EM

PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO:

TPC:

TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R		FY1996
OE EW3130020			TOTAL
			827
TOTAL			827
DIRECT FTE			8

TARGET CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020		878	806		827	827	492	478	554	571
CE 35EW31302		300	0		0	0	0	0	0	0
TOTAL		1178	806	0	827	827	492	478	554	571
DIRECT FTE		8	8	0	8	8	5	5	5	5

PLANNING CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020		878	897		923	923	579	597	614	633
CE 35EW31302		300	0		0	0	0	0	0	0
TOTAL		1178	897	0	923	923	579	597	614	633
DIRECT FTE		8	8	0	8	8	5	5	5	5

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The Solid Waste Information and Tracking System (SWITS) is an interactive, on-line user friendly data management system that provides records management and tracking of solid waste data. The SWITS database is used to integrate Hanford waste generators with the treatment, storage, and disposal (TSD) facility personnel. Waste designation, bar coding, and inventory tracking are also provided by SWITS. Data from the SWITS database is used to provide input to the DOE Integrated Data Base Federal Facilities Compliance act deliverables and other reports required by DOE and other Federal and State agencies. DOE Orders and environmental regulations such as RCRA and the State Dangerous Waste Regulations require data management for TSD facilities.

RELATED ACTIVITIES NARRATIVE:

The SWITS database is related to numerous other data management systems. Current month input is used as a basis for billing waste generators for waste receipts. Summary reports are generated and provided to DOE and various Federal and State agencies. The SWITS database is an integral support function for the operation of the low level burial grounds, the radioactive mixed waste storage buildings in the Central Waste Complex, and the Non-Radioactive Dangerous Waste Storage Facility.

KEY ASSUMPTIONS:

This activity assumes Hanford continues to receive, store, and dispose of low level waste, transuranic waste, radioactive mixed waste, and hazardous waste.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

ACTIVITY BY PRIORITY:

This activity is a DOE-HQ priority 1 and an RL Priority A2. The site wide waste tracking system is a Tiger Team Finding.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Since implementation in October 1991, SWITS has added a number of varied functionalities. Requests and Storage Disposal Approval Records (SDARs) can be tracked through the review and approval cycle to issuance of documents, providing staff and management with important real-time document tracking and trend analysis information, resulting in shorter turnaround times.

Barcoding for the Hazardous Waste Storage Facility, Central Waste Complex, 100N Area Facilities, the Plutonium Finishing Plant, and Burial Ground Facilities enables Solid Waste Operations to maintain accurate and up-to-date inventories, calculate building PE-curie limits and track potential problem containers. Coupled with the generator upgrades, barcoding will be used at the generating facilities to manage waste from its origin through its offsite disposal. Manifests are fully automated and generated from data input to SWITS and provide an on-line review process by transportation and TSD personnel. SWITS has become an invaluable waste management tool and can be used to demonstrate compliance with state and federal regulations.

The support SWITS provided to the backlog and moratorium wastes reduction efforts has been provided to Solid Waste Management through the generation of current status reports.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Development of the SWITS database will continue through 1994. Development tasks were divided into four blocks of activities for FY 1994. A minicomputer is scheduled for installation late in 1994. The specific type of computer will be determined as part of the competitive bid process. The new mini computer will allow added users to interface with the database. The computer is purchased with capital equipment money under ADS 2200-0-AH. SWITS will then be able to implement access to all major waste generators onsite and many small waste generators offsite requiring access.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

Support of requests from other DOE sites wanting to implement SWITS at their facilities in lieu of developing their own systems will begin. This will include a major support effort for the WIPP and WRAP facilities. Transportation management modules will be in place providing for the tracking of shipments from one site to another.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
--------------	-------	----------	--------

PLANNING YEAR (FY 1996) TASK NARRATIVE:

FY 1996 will see the completion of the basic architecture for SWITS. Graphics capabilities and interfaces with other systems, such as the Hanford Environmental Information System (HEIS) and the Laboratory Information Management System (LIMS) will be added. All regulatory reporting will be fully automated and executable from a menu structure.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

In 1997 and beyond, direct funding is provided for operation and maintenance of the SWITS database. Continued upgrades and improvements to

the system will be pursued as identified. Outyear budget will also be used to maintain the file servers for local area network access and computer interface time.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

Numerous regulations and other regulatory drivers apply to data management at TSD facilities.

DOE Order 5820.2A (Waste Management)
DOE Order 5400.3 (Mixed Waste Program)

WAC 173-303-390 (Reporting)
WAC 173-303-180 (Manifesting)
WAC 173-303-210 (Recordkeeping)
WAC 173-303-370 (Manifest System)
WAC 173-303-380 (Facility Recordkeeping)

40 CFR 260-268

REGULATORY KEY ISSUES:

There are no issues, when completely implemented the SWITS database should fully comply with all applicable data management regulations.

COMP/PROG BENEFITS AT PLANNING LEVEL:

A site wide waste tracking system was identified by a previous Tiger Team finding as being required. DOE Orders and environmental regulations such as RCRA and the State Dangerous Waste Regulations require data management for TSD facilities. The SWITS database is used to provide input to the DOE Integrated Data Base Federal Facilities Compliance act deliverables and other reports required by DOE and other Federal and State agencies. Waste designation, bar coding, and inventory tracking are also provided by SWITS.

CONCERNS AT PLANNING LEVEL:

Lack of funding at the planning level will result in an inability to provide automated required tracking of waste on the Hanford Site as required by DOE Orders and Environmental Regulations.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 0 SUBACTIVITY: AT

SUBACTIVITY TITLE: OPERATIONS ADMINISTRATION

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: TPC: TEC:

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
TOTAL	5524
DIRECT FTE	5524
	49

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	5050	4562			5524	5524	5262	5751	6016
CE 35EW31302	145	0			0	0	0	0	0
TOTAL	5195	4562	0		5524	5524	5262	5751	6016
DIRECT FTE	45	44	0		49	49	49	50	49

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	5050	5342			6580	6580	6992	7649	8281
CE 35EW31302	145	0			0	0	0	0	0
TOTAL	5195	5342	0		6580	6580	6992	7649	8281
DIRECT FTE	45	45	0		51	51	53	56	59

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

The Field Operations Administrative organizations are those personnel that support the daily operations in Solid Waste Management (SWM). These groups include Operations Support, Work Control, Facility Engineering, and Training and Administration. These groups perform the necessary activities in support of operations and maintenance in preparation to receive wastes at the Central Waste Complex (CWC), Non-Radioactive Dangerous Waste Storage Facility (616), Transuranic Storage and Assay Facility (TRUSAF), and the 200 East and 200 West Low Level Burial Ground facilities.

The Operations Support organization provides issuance and revision of operations procedures, conduct of operations procedures, internal tracking systems, training support, reporting, hazardous materials support, audits, and performance of Solid Waste Information Tracking System (SWITS) duties.

The Work Control organization provides support to SWM facility and field operations and maintenance on a continuing basis. This group performs planning and scheduling of SWM facility operations, preventive maintenance and corrective maintenance activities; job control administration, material procurement, Preventive Maintenance (PM)/Component Based Recall System (CBRS) procedure review and revision; material control and building administration responsibilities in support of operations and maintenance in preparation to receive wastes.

The Facility Engineering organization provide cognizant engineering expertise in support of safe operations and maintenance of SWM facilities. This support includes engineering/design for equipment modifications or upgrades, small project administration, configuration management of technical drawings, and general technical support.

RELATED ACTIVITIES NARRATIVE:

Most sub-activities in Activity Data Sheet (ADS) 2200 are related to this activity. Specifically, subactivities 2200-00-AB, 2200-00-AH, 2200-00-AK, 2200-00-AL, and 2200-00-AM are supported from 2200-00-AT activities.

KEY ASSUMPTIONS:

It is assumed that the base operating activities will be fully direct funded to the planning level for this activity. The actual costs associated with waste receipts are charged to the generators.

In an effort to enhance cost efficiencies, this TDD reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The HDW-EIS ROD commits the U.S. Department of Energy to retrieval of TRU waste. This action is an integral part of the Tri-Party Agreement milestone M-18-00.

The degradation of these waste containers will continue to occur if they are not removed. The waste packages outer structural containment is continually exposed to a humid environment which will cause eventual structural failure. Delaying the retrieval of waste from these conditions can cause additional retrieval costs (breached container retrieval will cost significantly more than retrieval of intact waste packages). Also to be considered is the environmental impact of releasing radioactive and hazardous material to the biosphere. WRAP will be designed and constructed to process the waste for eventual disposal in local sites low level waste or low level mixed waste (LLW or LLMW) or at WIPP (TRU).

WRAP processing schedules are keyed toward obtaining feedstocks at a rate that matches the WIPP delivery requirements (complete shipments by CY 2018), concurrence with minimizing the facility costs that are processing rate dependent. If retrieval is delayed, the processing rate through WRAP will be significantly slowed with acceleration beyond the design basis when retrieval starts.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)
40CFR 60 - (Standards of Performance for New Stationary Sources) 40CFR 61 - (Radiation Emission Standards)
40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)
40CFR 260 - (Hazardous Waste Management System)
40CFR 261 - (Identification and Listing of Hazardous Waste)
40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)
40CFR 264 - (Resource Conservation and Recovery Act (RCRA))
40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)
WAC 173-400 - (General Regulations for Air Pollution Sources)
WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

DOE Order 4700.1A - (Project Management System)
DOE Order 5400.1 - (General Environmental Protection Program)
DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)
DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)
DOE Order 5480.22 - (Technical Safety Requirements)
DOE Order 5480.23 - (Nuclear Safety Analysis Reports)

DOE Order 5480.24 - (Nuclear Criticality Safety)
DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)
DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)
DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS
CAA REGULATIONS
RCRA REGULATIONS
TSCA REGULATIONS

REGULATORY KEY ISSUES:

Waste has been retrievably stored in 25 trenches since 1970. Some waste packaging began approaching their 20 year design life in 1990 and will exceed the design life by 9 to 18 years by the time retrieval operations are initiated in 1998 and completed in 2017. The consequence of delaying retrieval operations could result in containers being stored for 48 years (i.e., 28 years beyond design life). Some of the containers are projected to be breached, which adds complications to the retrieval activities in terms of ALARA, waste retrieval facility design, environmental impacts, increased waste volumes, and retrieval costs.

Retrieval of all TRU waste can best be accomplished via a phased approach in which Phase 1 (W-113) addresses the waste in a single trench that is expected to be essentially structurally intact and contamination free, with Phase 2 Retrieval addressing the balance of intact waste as well as more complex and technically challenging waste that, for at least some of the volume, will have structurally failed packages and release of contamination.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The target and required funding scenarios are the same. The longer waste containers remain in below grade storage, the greater the container degradation will be. Each year that passes, more containers exceed their storage design life. Additional degradation of containers could result in the incremental increase in release of hazardous and radioactive materials.

CONCERNS AT PLANNING LEVEL:

Should retrieval facility funding be any further than shown in the target and decrement cases and cause a schedule delay, additional degradation of waste packages will occur, causing incremental increase in release of hazardous and radioactive materials as well as a significant increase in retrieval costs (in fixed dollars). The latter is caused by the extra expense associated with retrieval of waste that is degraded, has additional problems with handling of the degraded packages and contents, as well as the contaminated earth surrounding the waste packages. Additionally, ALARA

principles encourage early retrieval since additional exposure of staff can be expected when retrieving waste with breached containers. Finally delaying the facility will most likely result in administrative and legal problems related to DOE Orders, EIS, and Tri-Party Agreements.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required. Application of certain technology to waste retrieval will need to be demonstrated.

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OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 2 SUBACTIVITY: AC

SUBACTIVITY TITLE: W-113 PHASE 1 RETIEVAL STARTUP ACTIVITIES

INSTALLATION: HANFORD

CATEGORY: WM

DEFENSE/NON-DEFENSE:

VERSION DATE: 5/12/93

PROGRAM: EM

PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 94-D-411

TPC: 46900

TEC: 28400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3130020		TOTAL
		1148
TOTAL		1148
DIRECT FTE		8

TARGET CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020		168		255		816	816	1821	2651	0
CE 35EW31302		0		0		0	0	1050	0	0
TOTAL		168		255	0	816	816	1821	3701	0
DIRECT FTE		1		3	0	8	8	13	24	0

PLANNING CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020		168		285		900	900	4393	1920	0
CE 35EW31302		0		0	0	0	0	1050	0	0
TOTAL		168		285	0	900	900	4393	2970	0
DIRECT FTE		1		3	0	10	10	16	8	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This project supports design, construction and start-up of a facility that will be used to retrieve suspect Transuranic (TRU) waste from the storage trenches. Preliminary studies have been conducted on approaches to be taken in retrieval of waste from 25 trenches at the Hanford Site. Existing records have been analyzed for information as to the quantity and description of the various waste packages. A phased approach to address the retrieval has been selected as having a high probability of success in meeting both the short term needs to support the Waste Receiving and Processing (WRAP) Facility Module 1 (ADS 2220-01) feedstream requirements as well as recognizing the uncertainty of the condition of some of the buried waste. The Record of Decision (ROD) for the Hanford Defense Waste-Environmental Impact Statement (HDW-EIS) approves waste retrieval as the preferred alternative.

Phase 1 Retrieval is the Subproject that provides the retrieval capability as part of the Solid Waste Operations Complex (SWOC) MSA for retrieval, storage and treatment. Phase 1 Retrieval, Project W-113, is directed toward 1 of 25 trenches in which TRU waste is stored, where there is a high probability of retrieving and handling waste packages that are intact and without risk of contamination spread. The selected trench stores 10,000 suspect TRU containers. The trench contains drums, metal, plywood, and fiberglass reinforced plywood boxes. Retrieval of this trench requires approximately 6 years of retrieval operation. The Phase 2 Retrieval Facility, Project W-221 (ADS 2250-00), will address the remaining trenches where some waste containers are expected to be breached.

This Subactivity provides engineering direction and support to projects for CDR review, validation package, and design criteria revisions. Provide engineering studies as need to support TRU waste retrieval. Support preparation of the Preliminary Safety Analysis Report, NEPA documentation, and fire hazard analysis. Integrate Project W-113 with the control and data integration team. This Subactivity also procures the facility spares (CENRTC) which includes: covered van, electric cart, forklift, flat bed truck, front end loader, water truck, hazard vacuum system, operational spare dump truck.

RELATED ACTIVITIES NARRATIVE:

This Project is related to Waste Receiving and Processing (WRAP) Facility Module 1, (Project W-026), (ADS 2220-1).

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this ADS reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

Retrieval of waste is required by DOE Orders, and the ROD for the HDW-EIS on waste operations. Retrieval operations must be started, conducted, and

completed in a timely manner that will support the operations in the WRAP Facility and avoid further contamination of the environment. The Waste Isolation Pilot Plant (WIPP) current schedules demand the retrievably stored TRU waste be processed and shipped by the end of Calendar Year (CY) 2018 and WRAP construction and operation schedules are keyed towards that processing rate.

ACTIVITY BY PRIORITY:

RL Priority A1. HQ Priority 2, 3, 4, 6. Hanford Site Priority 17. Retrieval of TRU waste in the Burial Grounds is required to prevent breached containers from contaminating the environment. 'The Burial Ground warrants priority management attention to avoid unnecessary increases in worker radiation exposure and cost during cleanup,' as stated in the DOE-HQ Spent Fuel Working Group Report, Volume 1, November 1993.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

FY 1992 workscope completed to date included the FDC revision, PSE revision, and the completion of a Conceptual Design Report (CDR) to validate design costs. This includes submittal of the construction project data sheets.

FY 1993 work included initiation of the Advanced Conceptual Design Report, development of an Supplemental Design Requirements Document (SDRD), conducting a value engineering, preparing a quality assurance plan, initiation of start-up activities, initiating the PSAR, and submittal of the Project Plan.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G Issue Draft Operational Strategy Plan.

^G Issue Final Operational Strategy Plan.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Perform Definitive Design reviews.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Initiate startup planning.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Startup activities.

^G Support operational testing.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The HDW-EIS ROD commits the U.S. Department of Energy to retrieval of TRU waste. This action is an integral part of the Tri-Party Agreement milestone M-18-00.

The degradation of these waste containers will continue to occur if they are not removed. The waste packages outer structural containment is continually exposed to a humid environment which will cause eventual structural failure. Delaying the retrieval of waste from these conditions can cause additional retrieval costs (breached container retrieval will cost significantly more than retrieval of intact waste packages). Also to be considered is the environmental impact of releasing radioactive and hazardous material to the biosphere. WRAP will be designed and constructed to process the waste for eventual disposal in local sites low level waste or low level mixed waste (LLW or LLMW) or at WIPP (TRU).

WRAP processing schedules are keyed toward obtaining feedstocks at a rate that matches the WIPP delivery requirements (complete shipments by CY 2018), concurrence with minimizing the facility costs that are processing rate dependent. If retrieval is delayed, the processing rate through WRAP will be significantly slowed with acceleration beyond the design basis when retrieval starts.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)
40CFR 60 - (Standards of Performance for New Stationary Sources) 40CFR 61 - (Radiation Emission Standards)
40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)
40CFR 260 - (Hazardous Waste Management System)
40CFR 261 - (Identification and Listing of Hazardous Waste)
40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)
40CFR 264 - (Resource Conservation and Recovery Act (RCRA))
40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)
WAC 173-400 - (General Regulations for Air Pollution Sources)
WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

DOE Order 4700.1A - (Project Management System)
DOE Order 5400.1 - (General Environmental Protection Program)
DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)
DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)
DOE Order 5480.22 - (Technical Safety Requirements)
DOE Order 5480.23 - (Nuclear Safety Analysis Reports)

DOE Order 5480.24 - (Nuclear Criticality Safety)
DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)
DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)
DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS
CAA REGULATIONS
RCRA REGULATIONS
TSCA REGULATIONS

REGULATORY KEY ISSUES:

Waste has been retrievably stored in 25 trenches since 1970. Some waste packaging began approaching their 20 year design life in 1990 and will exceed the design life by 9 to 18 years by the time retrieval operations are initiated in 1998 and completed in 2017. The consequence of delaying retrieval operations could result in containers being stored for 48 years (i.e., 28 years beyond design life). Some of the containers are projected to be breached, which adds complications to the retrieval activities in terms of ALARA, waste retrieval facility design, environmental impacts, increased waste volumes, and retrieval costs.

Retrieval of all TRU waste can best be accomplished via a phased approach in which Phase 1 (W-113) addresses the waste in a single trench that is expected to be essentially structurally intact and contamination free, with Phase 2 Retrieval addressing the balance of intact waste as well as more complex and technically challenging waste that, for at least some of the volume, will have structurally failed packages and release of contamination.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The target and required funding scenarios are the same. The longer waste containers remain in below grade storage, the greater the container degradation will be. Each year that passes, more containers exceed their storage design life. Additional degradation of containers could result in the incremental increase in release of hazardous and radioactive materials.

CONCERNS AT PLANNING LEVEL:

Should retrieval facility funding be any further than shown in the target and decrement cases and cause a schedule delay, additional degradation of waste packages will occur, causing incremental increase in release of hazardous and radioactive materials as well as a significant increase in retrieval costs (in fixed dollars). The latter is caused by the extra expense associated with retrieval of waste that is degraded, has additional problems with handling of the degraded packages and contents, as well as the contaminated earth surrounding the waste packages. Additionally, ALARA

principles encourage early retrieval since additional exposure of staff can be expected when retrieving waste with breached containers. Finally delaying the facility will most likely result in administrative and legal problems related to DOE Orders, EIS, and Tri-Party Agreements.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required. Application of certain technology to waste retrieval will need to be demonstrated.

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OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 2 SUBACTIVITY: AD

SUBACTIVITY TITLE: W-113 PHASE 1 RETRIEVAL CDR/ACDR

INSTALLATION: HANFORD

CATEGORY: WM

DEFENSE/NON-DEFENSE:

VERSION DATE: 5/12/93

PROGRAM: EM

PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 94-D-411

TPC: 46900

TEC: 28400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020	24	0		0	0	0	0	0	0
TOTAL	24	0	0	0	0	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020	24	0		0	0	0	0	0	0
TOTAL	24	0	0	0	0	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This project supports design, construction and start-up of a facility that will be used to retrieve suspect Transuranic (TRU) waste from the storage trenches. Preliminary studies have been conducted on approaches to be taken in retrieval of waste from 25 trenches at the Hanford Site. Existing records have been analyzed for information as to the quantity and description of the various waste packages. A phased approach to address the retrieval has been selected as having a high probability of success in meeting both the short term needs to support the Waste Receiving and Processing (WRAP) Facility Module 1 (ADS 2220-01) feedstream requirements as well as recognizing the uncertainty of the condition of some of the buried waste. The Record of Decision (ROD) for the Hanford Defense Waste-Environmental Impact Statement (HDW-EIS) approves waste retrieval as the preferred alternative.

Phase 1 Retrieval is the Subproject that provides the retrieval capability as part of the Solid Waste Operations Complex (SWOC) MSA for retrieval, storage and treatment. Phase 1 Retrieval, Project W-113, is directed toward 1 of 25 trenches in which TRU waste is stored, where there is a high probability of retrieving and handling waste packages that are intact and without risk of contamination spread. The selected trench stores 10,000 suspect TRU containers. The trench contains drums, metal, plywood, and fiberglass reinforced plywood boxes. Retrieval of this trench requires approximately 6 years of retrieval operation. The Phase 2 Retrieval Facility, Project W-221 (ADS 2250-00), will address the remaining trenches where some waste containers are expected to be breached.

This Subactivity provides Advanced Conceptual Design Report (ACDR) studies in support of the design of Phase 1 Retrieval.

RELATED ACTIVITIES NARRATIVE:

This Project is related to Waste Receiving and Processing (WRAP) Facility Module 1, (Project W-026), (ADS 2220-1).

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this ADS reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

Retrieval of waste is required by DOE Orders, and the ROD for the HDW-EIS on waste operations. Retrieval operations must be started, conducted, and completed in a timely manner that will support the operations in the WRAP Facility and avoid further contamination of the environment. The Waste Isolation Pilot Plant (WIPP) current schedules demand the retrievably stored TRU waste be processed and shipped by the end of Calendar Year (CY) 2018 and WRAP construction and operation schedules are keyed towards that processing rate.

ACTIVITY BY PRIORITY:

RL Priority A1. HQ Priority 2, 3, 4, 6. Hanford Site Priority 17. Retrieval of TRU waste in the Burial Grounds is required to prevent breached containers from contaminating the environment. 'The Burial Ground warrants priority management attention to avoid unnecessary increases in worker radiation exposure and cost during cleanup,' as stated in the DOE-HQ Spent Fuel Working Group Report, Volume 1, November 1993.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

FY 1992 workscope completed to date included the FDC revision, PSE revision, and the completion of a Conceptual Design Report (CDR) to validate design costs. This includes submittal of the construction project data sheets.

FY 1993 work included initiation of the Advanced Conceptual Design Report, development of an Supplemental Design Requirements Document (SDRD), conducting a value engineering, preparing a quality assurance plan, initiation of start-up activities, initiating the PSAR, and submittal of the Project Plan.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G Complete all ACDR studies in support of the design of Phase 1 Retrieval.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Activities completed in FY 1994.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Activities completed in FY 1994.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Activities completed in FY 1994.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The HDW-EIS ROD commits the U.S. Department of Energy to retrieval of TRU waste. This action is an integral part of the Tri-Party Agreement milestone M-18-00.

The degradation of these waste containers will continue to occur if they are not removed. The waste packages outer structural containment is continually exposed to a humid environment which will cause eventual structural failure. Delaying the retrieval of waste from these conditions can cause additional retrieval costs (breached container retrieval will cost significantly more than retrieval of intact waste packages). Also to be considered is the environmental impact of releasing radioactive and hazardous material to the biosphere. WRAP will be designed and constructed to process the waste for eventual disposal in local sites low level waste or low level mixed waste (LLW or LLMW) or at WIPP (TRU).

WRAP processing schedules are keyed toward obtaining feedstocks at a rate that matches the WIPP delivery requirements (complete shipments by CY 2018), concurrence with minimizing the facility costs that are processing rate dependent. If retrieval is delayed, the processing rate through WRAP will be significantly slowed with acceleration beyond the design basis when retrieval starts.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)

40CFR 60 - (Standards of Performance for New Stationary Sources) 40CFR 61 - (Radiation Emission Standards)

40CFR 61 - (National Emission Standards for Hazardous Air Pollutants) 40CFR 260 - (Hazardous Waste Management System)

40CFR 261 - (Identification and Listing of Hazardous Waste) 40CFR 262 - (Standards Applicable to Generators of Hazardous Waste) 40CFR 264 - (Resource Conservation and Recovery Act (RCRA))

40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)

WAC 173-400 - (General Regulations for Air Pollution Sources) WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

DOE Order 4700.1A - (Project Management System)

DOE Order 5400.1 - (General Environmental Protection Program) DOE Order

5400.5 - (Radiation Protection of the Public and the Environment) DOE Order

5480.1B - (Environmental, Safety, and Health Program for DOE Operations)

DOE Order 5480.22 - (Technical Safety Requirements)

DOE Order 5480.23 - (Nuclear Safety Analysis Reports)

DOE Order 5480.24 - (Nuclear Criticality Safety)

DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)
DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)
DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS
CAA REGULATIONS
RCRA REGULATIONS
TSCA REGULATIONS

REGULATORY KEY ISSUES:

Waste has been retrievably stored in 25 trenches since 1970. Some waste packaging began approaching their 20 year design life in 1990 and will exceed the design life by 9 to 18 years by the time retrieval operations are initiated in 1998 and completed in 2017. The consequence of delaying retrieval operations could result in containers being stored for 48 years (i.e., 28 years beyond design life). Some of the containers are projected to be breached, which adds complications to the retrieval activities in terms of ALARA, waste retrieval facility design, environmental impacts, increased waste volumes, and retrieval costs.

Retrieval of all TRU waste can best be accomplished via a phased approach in which Phase 1 (W-113) addresses the waste in a single trench that is expected to be essentially structurally intact and contamination free, with Phase 2 Retrieval addressing the balance of intact waste as well as more complex and technically challenging waste that, for at least some of the volume, will have structurally failed packages and release of contamination.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The target and required funding scenarios are the same. The longer waste containers remain in below grade storage, the greater the container degradation will be. Each year that passes, more containers exceed their storage design life. Additional degradation of containers could result in the incremental increase in release of hazardous and radioactive materials.

CONCERNS AT PLANNING LEVEL:

Should retrieval facility funding be any further than shown in the target and decrement cases and cause a schedule delay, additional degradation of waste packages will occur, causing incremental increase in release of hazardous and radioactive materials as well as a significant increase in retrieval costs (in fixed dollars). The latter is caused by the extra expense associated with retrieval of waste that is degraded, has additional problems with handling of the degraded packages and contents, as well as the contaminated earth surrounding the waste packages. Additionally, ALARA principles encourage early retrieval since additional exposure of staff can

be expected when retrieving waste with breached containers. Finally delaying the facility will most likely result in administrative and legal problems related to DOE Orders, EIS, and Tri-Party Agreements.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required. Application of certain technology to waste retrieval will need to be demonstrated.

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OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 2 SUBACTIVITY: AE
SUBACTIVITY TITLE: W-113 PHASE 1 RETRIEVAL EQUIPMENT DEVELOPMENT AND TESTING
INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93
PROGRAM: EM PRINT DATE: 8/16/94

LINE ITEM NO: 94-D-411 TPC: 46900 TEC: 28400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

	FY1996
B&R	TOTAL
OE EW3130020	392
TOTAL	392
DIRECT FTE	1

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
			RL BUD	LEGAL	ESH	TOTAL				
OE	B&R									
EW3130020		250	239		392	392	69	90	0	0
TOTAL		250	239	0	392	392	69	90	0	0
DIRECT FTE		1	2	0	1	1	1	1	0	0

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
			RL BUD	LEGAL	ESH	TOTAL				
B&R										
OE EW3130020		250	267		435	435	166	27	0	0
TOTAL		250	267	0	435	435	166	27	0	0
DIRECT FTE		1	2	0	1	1	1	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This project supports design, construction and start-up of a facility that will be used to retrieve suspect Transuranic (TRU) waste from the storage trenches. Preliminary studies have been conducted on approaches to be taken in retrieval of waste from 25 trenches at the Hanford Site. Existing records have been analyzed for information as to the quantity and description of the various waste packages. A phased approach to address the retrieval has been selected as having a high probability of success in meeting both the short term needs to support the Waste Receiving and Processing (WRAP) Facility Module 1 (ADS 2220-01) feedstream requirements as well as recognizing the uncertainty of the condition of some of the buried waste. The Record of Decision (ROD) for the Hanford Defense Waste-Environmental Impact Statement (HDW-EIS) approves waste retrieval as the preferred alternative.

Phase 1 Retrieval is the Subproject that provides the retrieval capability as part of the Solid Waste Operations Complex (SWOC) MSA for retrieval, storage and treatment. Phase 1 Retrieval, Project W-113, is directed toward 1 of 25 trenches in which TRU waste is stored, where there is a high probability of retrieving and handling waste packages that are intact and without risk of contamination spread. The selected trench stores 10,000 suspect TRU containers. The trench contains drums, metal, plywood, and fiberglass reinforced plywood boxes. Retrieval of this trench requires approximately 6 years of retrieval operation. The Phase 2 Retrieval Facility, Project W-221 (ADS 2250-00), will address the remaining trenches where some waste containers are expected to be breached.

This Subactivity provides for coordination review and support of equipment development and testing for Project W-113. Provide direction to the architect/engineer on interface requirements and mechanical equipment development. Complete technical review of container venting equipment used on the TRU Retrieval Pilot Program. Initiate development of container venting system for Project W-113.

RELATED ACTIVITIES NARRATIVE:

This Project is related to Waste Receiving and Processing (WRAP) Facility Module 1, (Project W-026), (ADS 2220-1).

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this ADS reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

Retrieval of waste is required by DOE Orders, and the ROD for the HDW-EIS on waste operations. Retrieval operations must be started, conducted, and completed in a timely manner that will support the operations in the WRAP Facility and avoid further contamination of the environment. The Waste Isolation Pilot Plant (WIPP) current schedules demand the retrievably

stored TRU waste be processed and shipped by the end of Calendar Year (CY) 2018 and WRAP construction and operation schedules are keyed towards that processing rate.

ACTIVITY BY PRIORITY:

RL Priority A1. HQ Priority 2, 3, 4, 6. Hanford Site Priority 17. Retrieval of TRU waste in the Burial Grounds is required to prevent breached containers from contaminating the environment. 'The Burial Ground warrants priority management attention to avoid unnecessary increases in worker radiation exposure and cost during cleanup,' as stated in the DOE-HQ Spent Fuel Working Group Report, Volume 1, November 1993.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

FY 1992 workscope completed to date included the FDC revision, PSE revision, and the completion of a Conceptual Design Report (CDR) to validate design costs. This includes submittal of the construction project data sheets.

FY 1993 work included initiation of the Advanced Conceptual Design Report, development of an Supplemental Design Requirements Document (SDRD), conducting a value engineering, preparing a quality assurance plan, initiation of start-up activities, initiating the PSAR, and submittal of the Project Plan.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G Initiate CVS Equipment Development.

^G Complete SDRD.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Design and build prototype CVS equipment.

^G Perform Definitive Design Reviews.

^G Maintain SDRD.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Complete CVS equipment testing.

^G Complete specification for CVS equipment.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Provide support with construction efforts.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The HDW-EIS ROD commits the U.S. Department of Energy to retrieval of TRU waste. This action is an integral part of the Tri-Party Agreement milestone M-18-00.

The degradation of these waste containers will continue to occur if they are not removed. The waste packages outer structural containment is continually exposed to a humid environment which will cause eventual structural failure. Delaying the retrieval of waste from these conditions can cause additional retrieval costs (breached container retrieval will cost significantly more than retrieval of intact waste packages). Also to be considered is the environmental impact of releasing radioactive and hazardous material to the biosphere. WRAP will be designed and constructed to process the waste for eventual disposal in local sites low level waste or low level mixed waste (LLW or LLMW) or at WIPP (TRU).

WRAP processing schedules are keyed toward obtaining feedstocks at a rate that matches the WIPP delivery requirements (complete shipments by CY 2018), concurrence with minimizing the facility costs that are processing rate dependent. If retrieval is delayed, the processing rate through WRAP will be significantly slowed with acceleration beyond the design basis when retrieval starts.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)
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40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)
40CFR 260 - (Hazardous Waste Management System)
40CFR 261 - (Identification and Listing of Hazardous Waste)
40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)
40CFR 264 - (Resource Conservation and Recovery Act (RCRA)
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WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)
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DEPARTMENT OF ENERGY ORDERS

DOE Order 4700.1A - (Project Management System)
DOE Order 5400.1 - (General Environmental Protection Program)
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DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)
DOE Order 5480.22 - (Technical Safety Requirements)
DOE Order 5480.23 - (Nuclear Safety Analysis Reports)

DOE Order 5480.24 - (Nuclear Criticality Safety)
DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)
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DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS
CAA REGULATIONS
RCRA REGULATIONS
TSCA REGULATIONS

REGULATORY KEY ISSUES:

Waste has been retrievably stored in 25 trenches since 1970. Some waste packaging began approaching their 20 year design life in 1990 and will exceed the design life by 9 to 18 years by the time retrieval operations are initiated in 1998 and completed in 2017. The consequence of delaying retrieval operations could result in containers being stored for 48 years (i.e., 28 years beyond design life). Some of the containers are projected to be breached, which adds complications to the retrieval activities in terms of ALARA, waste retrieval facility design, environmental impacts, increased waste volumes, and retrieval costs.

Retrieval of all TRU waste can best be accomplished via a phased approach in which Phase 1 (W-113) addresses the waste in a single trench that is expected to be essentially structurally intact and contamination free, with Phase 2 Retrieval addressing the balance of intact waste as well as more complex and technically challenging waste that, for at least some of the volume, will have structurally failed packages and release of contamination.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The target and required funding scenarios are the same. The longer waste containers remain in below grade storage, the greater the container degradation will be. Each year that passes, more containers exceed their storage design life. Additional degradation of containers could result in the incremental increase in release of hazardous and radioactive materials.

CONCERNS AT PLANNING LEVEL:

Should retrieval facility funding be any further than shown in the target and decrement cases and cause a schedule delay, additional degradation of waste packages will occur, causing incremental increase in release of hazardous and radioactive materials as well as a significant increase in retrieval costs (in fixed dollars). The latter is caused by the extra expense associated with retrieval of waste that is degraded, has additional problems with handling of the degraded packages and contents, as well as the contaminated earth surrounding the waste packages. Additionally, ALARA

principles encourage early retrieval since additional exposure of staff can be expected when retrieving waste with breached containers. Finally delaying the facility will most likely result in administrative and legal problems related to DOE Orders, EIS, and Tri-Party Agreements.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required. Application of certain technology to waste retrieval will need to be demonstrated.

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INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 2 SUBACTIVITY: AF

SUBACTIVITY TITLE: W-113 PHASE 1 RETRIEVAL OPERATIONS

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 94-D-411 TPC: 46900 TEC: 28400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	B&R	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020		0	0		0	0	0	3445	6276	6468
TOTAL		0	0	0	0	0	0	3445	6276	6468
DIRECT FTE		0	0	0	0	0	0	16	32	32

PLANNING CASE (\$ IN THOUSANDS)

	B&R	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020		0	0		0	0	0	4301	6964	7172
TOTAL		0	0	0	0	0	0	4301	6964	7172
DIRECT FTE		0	0	0	0	0	0	16	32	32

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This project supports design, construction and start-up of a facility that will be used to retrieve suspect Transuranic (TRU) waste from the storage trenches. Preliminary studies have been conducted on approaches to be taken in retrieval of waste from 25 trenches at the Hanford Site. Existing records have been analyzed for information as to the quantity and description of the various waste packages. A phased approach to address the retrieval has been selected as having a high probability of success in meeting both the short term needs to support the Waste Receiving and Processing (WRAP) Facility Module 1 (ADS 2220-01) feedstream requirements as well as recognizing the uncertainty of the condition of some of the buried waste. The Record of Decision (ROD) for the Hanford Defense Waste-Environmental Impact Statement (HDW-EIS) approves waste retrieval as the preferred alternative.

Phase 1 Retrieval is the Subproject that provides the retrieval capability as part of the Solid Waste Operations Complex (SWOC) MSA for retrieval, storage and treatment. Phase 1 Retrieval, Project W-113, is directed toward 1 of 25 trenches in which TRU waste is stored, where there is a high probability of retrieving and handling waste packages that are intact and without risk of contamination spread. The selected trench stores 10,000 suspect TRU containers. The trench contains drums, metal, plywood, and fiberglass reinforced plywood boxes. Retrieval of this trench requires approximately 6 years of retrieval operation. The Phase 2 Retrieval Facility, Project W-221 (ADS 2250-00), will address the remaining trenches where some waste containers are expected to be breached.

This Subactivity supports the technical and support work necessary to startup and operate Phase 1 Retrieval. The activities that support startup include preparation of plans (startup, emergency response, facility effluent monitoring, maintenance, training, etc.), procedure development (operating, maintenance, training, administrative, etc.). These startup costs are not included as part of the project TPC.

RELATED ACTIVITIES NARRATIVE:

This Project is related to Waste Receiving and Processing (WRAP) Facility Module 1, (Project W-026), (ADS 2220-1).

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this ADS reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

Retrieval of waste is required by DOE Orders, and the ROD for the HDW-EIS on waste operations. Retrieval operations must be started, conducted, and completed in a timely manner that will support the operations in the WRAP Facility and avoid further contamination of the environment. The Waste Isolation Pilot Plant (WIPP) current schedules demand the retrievability

stored TRU waste be processed and shipped by the end of Calendar Year (CY) 2018 and WRAP construction and operation schedules are keyed towards that processing rate.

ACTIVITY BY PRIORITY:

RL Priority A1. HQ Priority 2, 3, 4, 6. Hanford Site Priority 17. Retrieval of TRU waste in the Burial Grounds is required to prevent breached containers from contaminating the environment. 'The Burial Ground warrants priority management attention to avoid unnecessary increases in worker radiation exposure and cost during cleanup,' as stated in the DOE-HQ Spent Fuel Working Group Report, Volume 1, November 1993.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

FY 1992 workscope completed to date included the FDC revision, PSE revision, and the completion of a Conceptual Design Report (CDR) to validate design costs. This includes submittal of the construction project data sheets.

FY 1993 work included initiation of the Advanced Conceptual Design Report, development of an Supplemental Design Requirements Document (SDRD), conducting a value engineering, preparing a quality assurance plan, initiation of start-up activities, initiating the PSAR, and submittal of the Project Plan.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G Initiate startup activities.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Establish the organizations for the operations and readiness review process for Phase V Storage. Revise startup plans and initiate readiness review activities.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Continue to staff-up for readiness review and plant operations. Initiate preparation of operating, test procedures, various operating and administrative procedures, readiness review documentation, etc.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Plant startup activities will be completed to meet the proposed construction completion date for Phase 1 Retrieval in FY 1997. Preparation of operating procedures, operator training, operability testing, readiness reviews, and other required compliance reviews will be accomplished in FY 1997-1998. Operational dollars will begin in FY 1998.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The HDW-EIS ROD commits the U.S. Department of Energy to retrieval of TRU waste. This action is an integral part of the Tri-Party Agreement milestone M-18-00.

The degradation of these waste containers will continue to occur if they are not removed. The waste packages outer structural containment is continually exposed to a humid environment which will cause eventual structural failure. Delaying the retrieval of waste from these conditions can cause additional retrieval costs (breached container retrieval will cost significantly more than retrieval of intact waste packages). Also to be considered is the environmental impact of releasing radioactive and hazardous material to the biosphere. WRAP will be designed and constructed to process the waste for eventual disposal in local sites low level waste or low level mixed waste (LLW or LLMW) or at WIPP (TRU).

WRAP processing schedules are keyed toward obtaining feedstocks at a rate that matches the WIPP delivery requirements (complete shipments by CY 2018), concurrence with minimizing the facility costs that are processing rate dependent. If retrieval is delayed, the processing rate through WRAP will be significantly slowed with acceleration beyond the design basis when retrieval starts.

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DOE Order 5400.1 - (General Environmental Protection Program)
DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)
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DOE Order 5480.24 - (Nuclear Criticality Safety)
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DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)
DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS
CAA REGULATIONS
RCRA REGULATIONS
TSCA REGULATIONS

REGULATORY KEY ISSUES:

Waste has been retrievably stored in 25 trenches since 1970. Some waste packaging began approaching their 20 year design life in 1990 and will exceed the design life by 9 to 18 years by the time retrieval operations are initiated in 1998 and completed in 2017. The consequence of delaying retrieval operations could result in containers being stored for 48 years (i.e., 28 years beyond design life). Some of the containers are projected to be breached, which adds complications to the retrieval activities in terms of ALARA, waste retrieval facility design, environmental impacts, increased waste volumes, and retrieval costs.

Retrieval of all TRU waste can best be accomplished via a phased approach in which Phase 1 (W-113) addresses the waste in a single trench that is expected to be essentially structurally intact and contamination free, with Phase 2 Retrieval addressing the balance of intact waste as well as more complex and technically challenging waste that, for at least some of the volume, will have structurally failed packages and release of contamination.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The target and required funding scenarios are the same. The longer waste containers remain in below grade storage, the greater the container degradation will be. Each year that passes, more containers exceed their storage design life. Additional degradation of containers could result in the incremental increase in release of hazardous and radioactive materials.

CONCERNS AT PLANNING LEVEL:

Should retrieval facility funding be any further than shown in the target and decrement cases and cause a schedule delay, additional degradation of waste packages will occur, causing incremental increase in release of hazardous and radioactive materials as well as a significant increase in retrieval costs (in fixed dollars). The latter is caused by the extra expense associated with retrieval of waste that is degraded, has additional problems with handling of the degraded packages and contents, as well as the contaminated earth surrounding the waste packages. Additionally, ALARA

principles encourage early retrieval since additional exposure of staff can be expected when retrieving waste with breached containers. Finally delaying the facility will most likely result in administrative and legal problems related to DOE Orders, EIS, and Tri-Party Agreements.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required. Application of certain technology to waste retrieval will need to be demonstrated.

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INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 2 SUBACTIVITY: AG

SUBACTIVITY TITLE: W-113 PHASE 1 RETRIEVAL DEFINITIVE DESIGN

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 94-D-411 TPC: 46900 TEC: 28400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

		FY1996
B&R		TOTAL
LI 39EW31302		401
TOTAL		401
DIRECT FTE		0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
LI 39EW31302	2054	1579			405	405	122	0	0
TOTAL	2054	1579	0		405	405	122	0	0
DIRECT FTE	0	0	0		0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
LI 39EW31302	2054	1753			450	450	143	0	0
TOTAL	2054	1753	0		450	450	143	0	0
DIRECT FTE	0	0	0		0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This project supports design, construction and start-up of a facility that will be used to retrieve suspect Transuranic (TRU) waste from the storage trenches. Preliminary studies have been conducted on approaches to be taken in retrieval of waste from 25 trenches at the Hanford Site. Existing records have been analyzed for information as to the quantity and description of the various waste packages. A phased approach to address the retrieval has been selected as having a high probability of success in meeting both the short term needs to support the Waste Receiving and Processing (WRAP) Facility Module 1 (ADS 2220-01) feedstream requirements as well as recognizing the uncertainty of the condition of some of the buried waste. The Record of Decision (ROD) for the Hanford Defense Waste-Environmental Impact Statement (HDW-EIS) approves waste retrieval as the preferred alternative.

Phase 1 Retrieval is the Subproject that provides the retrieval capability as part of the Solid Waste Operations Complex (SWOC) MSA for retrieval, storage and treatment. Phase 1 Retrieval, Project W-113, is directed toward 1 of 25 trenches in which TRU waste is stored, where there is a high probability of retrieving and handling waste packages that are intact and without risk of contamination spread. The selected trench stores 10,000 suspect TRU containers. The trench contains drums, metal, plywood, and fiberglass reinforced plywood boxes. Retrieval of this trench requires approximately 6 years of retrieval operation. The Phase 2 Retrieval Facility, Project W-221 (ADS 2250-00), will address the remaining trenches where some waste containers are expected to be breached.

This Subactivity provides for off-site Architect/Engineer preparation the Preliminary Design (Title I) and Detailed Design (Title II) for Phase 1 Retrieval (Project W-113). Included will be: Work Plan, Project Management Plan, Preliminary Design Report, Detailed Design Report. This Subactivity also provides Engineering/Inspection (Title III) activities to be performed during construction.

RELATED ACTIVITIES NARRATIVE:

This Project is related to Waste Receiving and Processing (WRAP) Facility Module 1, (Project W-026), (ADS 2220-1).

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this ADS reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

Retrieval of waste is required by DOE Orders, and the ROD for the HDW-EIS on waste operations. Retrieval operations must be started, conducted, and completed in a timely manner that will support the operations in the WRAP Facility and avoid further contamination of the environment. The Waste Isolation Pilot Plant (WIPP) current schedules demand the retrievability

stored TRU waste be processed and shipped by the end of Calendar Year (CY) 2018 and WRAP construction and operation schedules are keyed towards that processing rate.

ACTIVITY BY PRIORITY:

RL Priority A1. HQ Priority 2, 3, 4, 6. Hanford Site Priority 17. Retrieval of TRU waste in the Burial Grounds is required to prevent breached containers from contaminating the environment. 'The Burial Ground warrants priority management attention to avoid unnecessary increases in worker radiation exposure and cost during cleanup,' as stated in the DOE-HQ Spent Fuel Working Group Report, Volume 1, November 1993.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

FY 1992 workscope completed to date included the FDC revision, PSE revision, and the completion of a Conceptual Design Report (CDR) to validate design costs. This includes submittal of the construction project data sheets.

FY 1993 work included initiation of the Advanced Conceptual Design Report, development of an Supplemental Design Requirements Document (SDRD), conducting a value engineering, preparing a quality assurance plan, initiation of start-up activities, initiating the PSAR, and submittal of the Project Plan.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

- ^G Award of Key Decision 1 from DOE-HQ to commence Title I Design.
- ^G Award of Contract to off-site Architect/Engineer for preparation of Title I Design.
- ^G Initiation and completion of Title I Design.
- ^G Award of Key Decision 2 from DOE-HQ to commence Title II Design.
- ^G Initiation of Title II Design.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

- ^G Complete Title II Design.
- ^G Award of Key Decision 3 from DOE-HQ to commence construction.
- ^G Initiate Engineering/Inspection (Title III) activities along with the commencement of construction.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

- ^G Continue Title III activities in support of construction completion in 2Q97.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

- ^G Continue Title III activities in support of construction completion in 2Q97.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The HDW-EIS ROD commits the U.S. Department of Energy to retrieval of TRU waste. This action is an integral part of the Tri-Party Agreement milestone M-18-00.

The degradation of these waste containers will continue to occur if they are not removed. The waste packages outer structural containment is continually exposed to a humid environment which will cause eventual structural failure. Delaying the retrieval of waste from these conditions can cause additional retrieval costs (breached container retrieval will cost significantly more than retrieval of intact waste packages). Also to be considered is the environmental impact of releasing radioactive and hazardous material to the biosphere. WRAP will be designed and constructed to process the waste for eventual disposal in local sites low level waste or low level mixed waste (LLW or LLMW) or at WIPP (TRU).

WRAP processing schedules are keyed toward obtaining feedstocks at a rate that matches the WIPP delivery requirements (complete shipments by CY 2018), concurrence with minimizing the facility costs that are processing rate dependent. If retrieval is delayed, the processing rate through WRAP will be significantly slowed with acceleration beyond the design basis when retrieval starts.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)
40CFR 60 - (Standards of Performance for New Stationary Sources) 40CFR 61 - (Radiation Emission Standards)
40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)
40CFR 260 - (Hazardous Waste Management System)
40CFR 261 - (Identification and Listing of Hazardous Waste)
40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)
40CFR 264 - (Resource Conservation and Recovery Act (RCRA))
40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)
WAC 173-400 - (General Regulations for Air Pollution Sources)
WAC 296-155 - (Washington Industrial Safety and Health Act)

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DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)
DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)
DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS
CAA REGULATIONS
RCRA REGULATIONS
TSCA REGULATIONS

REGULATORY KEY ISSUES:

Waste has been retrievably stored in 25 trenches since 1970. Some waste packaging began approaching their 20 year design life in 1990 and will exceed the design life by 9 to 18 years by the time retrieval operations are initiated in 1998 and completed in 2017. The consequence of delaying retrieval operations could result in containers being stored for 48 years (i.e., 28 years beyond design life). Some of the containers are projected to be breached, which adds complications to the retrieval activities in terms of ALARA, waste retrieval facility design, environmental impacts, increased waste volumes, and retrieval costs.

Retrieval of all TRU waste can best be accomplished via a phased approach in which Phase 1 (W-113) addresses the waste in a single trench that is expected to be essentially structurally intact and contamination free, with Phase 2 Retrieval addressing the balance of intact waste as well as more complex and technically challenging waste that, for at least some of the volume, will have structurally failed packages and release of contamination.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The target and required funding scenarios are the same. The longer waste containers remain in below grade storage, the greater the container degradation will be. Each year that passes, more containers exceed their storage design life. Additional degradation of containers could result in the incremental increase in release of hazardous and radioactive materials.

CONCERNS AT PLANNING LEVEL:

Should retrieval facility funding be any further than shown in the target and decrement cases and cause a schedule delay, additional degradation of waste packages will occur, causing incremental increase in release of hazardous and radioactive materials as well as a significant increase in retrieval costs (in fixed dollars). The latter is caused by the extra expense associated with retrieval of waste that is degraded, has additional problems with handling of the degraded packages and contents, as well as the contaminated earth surrounding the waste packages. Additionally, ALARA

principles encourage early retrieval since additional exposure of staff can be expected when retrieving waste with breached containers. Finally delaying the facility will most likely result in administrative and legal problems related to DOE Orders, EIS, and Tri-Party Agreements.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required. Application of certain technology to waste retrieval will need to be demonstrated.

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INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 2 SUBACTIVITY: AH

SUBACTIVITY TITLE: W-113 PHASE 1 RETRIEVAL CONSTRUCTION

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 94-D-411 TPC: 46900 TEC: 28400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

		FY1996
B&R		TOTAL
LI 39EW31302		4772
TOTAL		4772
DIRECT FTE		0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
LI 39EW31302	0	671			4822	4822	1702	2009	0
TOTAL	0	671	0		4822	4822	1702	2009	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
LI 39EW31302	0	745			8149	8149	3000	0	0
TOTAL	0	745	0		8149	8149	3000	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This project supports design, construction and start-up of a facility that will be used to retrieve suspect Transuranic (TRU) waste from the storage trenches. Preliminary studies have been conducted on approaches to be taken in retrieval of waste from 25 trenches at the Hanford Site. Existing records have been analyzed for information as to the quantity and description of the various waste packages. A phased approach to address the retrieval has been selected as having a high probability of success in meeting both the short term needs to support the Waste Receiving and Processing (WRAP) Facility Module 1 (ADS 2220-01) feedstream requirements as well as recognizing the uncertainty of the condition of some of the buried waste. The Record of Decision (ROD) for the Hanford Defense Waste-Environmental Impact Statement (HDW-EIS) approves waste retrieval as the preferred alternative.

Phase 1 Retrieval is the Subproject that provides the retrieval capability as part of the Solid Waste Operations Complex (SWOC) MSA for retrieval, storage and treatment. Phase 1 Retrieval, Project W-113, is directed toward 1 of 25 trenches in which TRU waste is stored, where there is a high probability of retrieving and handling waste packages that are intact and without risk of contamination spread. The selected trench stores 10,000 suspect TRU containers. The trench contains drums, metal, plywood, and fiberglass reinforced plywood boxes. Retrieval of this trench requires approximately 6 years of retrieval operation. The Phase 2 Retrieval Facility, Project W-221 (ADS 2250-00), will address the remaining trenches where some waste containers are expected to be breached.

This Subactivity provides for preparation of the major equipment bid packages which includes: NDE/NDA equipment, vacuum system, crane, hoist. The bid package proposals will be evaluated and contracts awarded.

RELATED ACTIVITIES NARRATIVE:

This Project is related to Waste Receiving and Processing (WRAP) Facility Module 1, (Project W-026), (ADS 2220-1).

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this ADS reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

Retrieval of waste is required by DOE Orders, and the ROD for the HDW-EIS on waste operations. Retrieval operations must be started, conducted, and completed in a timely manner that will support the operations in the WRAP Facility and avoid further contamination of the environment. The Waste Isolation Pilot Plant (WIPP) current schedules demand the retrievably stored TRU waste be processed and shipped by the end of Calendar Year (CY) 2018 and WRAP construction and operation schedules are keyed towards that processing rate.

ACTIVITY BY PRIORITY:

RL Priority A1. HQ Priority 2, 3, 4, 6. Hanford Site Priority 17. Retrieval of TRU waste in the Burial Grounds is required to prevent breached containers from contaminating the environment. 'The Burial Ground warrants priority management attention to avoid unnecessary increases in worker radiation exposure and cost during cleanup,' as stated in the DOE-HQ Spent Fuel Working Group Report, Volume 1, November 1993.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

FY 1992 workscope completed to date included the FDC revision, PSE revision, and the completion of a Conceptual Design Report (CDR) to validate design costs. This includes submittal of the construction project data sheets.

FY 1993 work included initiation of the Advanced Conceptual Design Report, development of an Supplemental Design Requirements Document (SDRD), conducting a value engineering, preparing a quality assurance plan, initiation of start-up activities, initiating the PSAR, and submittal of the Project Plan.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G No funding to date.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Initiation of procurement contracts for purchase of NDE/NDA equipment, vacuum system, crane and hoist.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Continue procurement activities in support of construction completion in 2Q97.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Continue procurement activities in support of construction completion in 2Q97.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The HDW-EIS ROD commits the U.S. Department of Energy to retrieval of TRU waste. This action is an integral part of the Tri-Party Agreement milestone M-18-00.

The degradation of these waste containers will continue to occur if they are not removed. The waste packages outer structural containment is continually exposed to a humid environment which will cause eventual structural failure. Delaying the retrieval of waste from these conditions can cause additional retrieval costs (breached container retrieval will cost significantly more than retrieval of intact waste packages). Also to be considered is the environmental impact of releasing radioactive and hazardous material to the biosphere. WRAP will be designed and constructed to process the waste for eventual disposal in local sites low level waste or low level mixed waste (LLW or LLMW) or at WIPP (TRU).

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40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)
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DOE Order 5480.23 - (Nuclear Safety Analysis Reports)

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DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS
CAA REGULATIONS
RCRA REGULATIONS
TSCA REGULATIONS

REGULATORY KEY ISSUES:

Waste has been retrievably stored in 25 trenches since 1970. Some waste packaging began approaching their 20 year design life in 1990 and will exceed the design life by 9 to 18 years by the time retrieval operations are initiated in 1998 and completed in 2017. The consequence of delaying retrieval operations could result in containers being stored for 48 years (i.e., 28 years beyond design life). Some of the containers are projected to be breached, which adds complications to the retrieval activities in terms of ALARA, waste retrieval facility design, environmental impacts, increased waste volumes, and retrieval costs.

Retrieval of all TRU waste can best be accomplished via a phased approach in which Phase 1 (W-113) addresses the waste in a single trench that is expected to be essentially structurally intact and contamination free, with Phase 2 Retrieval addressing the balance of intact waste as well as more complex and technically challenging waste that, for at least some of the volume, will have structurally failed packages and release of contamination.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The target and required funding scenarios are the same. The longer waste containers remain in below grade storage, the greater the container degradation will be. Each year that passes, more containers exceed their storage design life. Additional degradation of containers could result in the incremental increase in release of hazardous and radioactive materials.

CONCERNS AT PLANNING LEVEL:

Should retrieval facility funding be any further than shown in the target and decrement cases and cause a schedule delay, additional degradation of waste packages will occur, causing incremental increase in release of hazardous and radioactive materials as well as a significant increase in retrieval costs (in fixed dollars). The latter is caused by the extra expense associated with retrieval of waste that is degraded, has additional problems with handling of the degraded packages and contents, as well as the contaminated earth surrounding the waste packages. Additionally, ALARA

principles encourage early retrieval since additional exposure of staff can be expected when retrieving waste with breached containers. Finally delaying the facility will most likely result in administrative and legal problems related to DOE Orders, EIS, and Tri-Party Agreements.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required. Application of certain technology to waste retrieval will need to be demonstrated.

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INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 2 SUBACTIVITY: AI

SUBACTIVITY TITLE: W-113 PHASE 1 RETRIEVAL PROCUREMENT

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 94-D-411 TPC: 46900 TEC: 28400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
LI 39EW31302	TOTAL
TOTAL	6209
DIRECT FTE	6209
	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
LI 39EW31302	0	407			6274	6274	1232	2357	0
TOTAL	0	407	0		6274	6274	1232	2357	0
DIRECT FTE	0	0	0		0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
LI 39EW31302	0	452			8759	8759	1448	0	0
TOTAL	0	452	0		8759	8759	1448	0	0
DIRECT FTE	0	0	0		0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This project supports design, construction and start-up of a facility that will be used to retrieve suspect Transuranic (TRU) waste from the storage trenches. Preliminary studies have been conducted on approaches to be taken in retrieval of waste from 25 trenches at the Hanford Site. Existing records have been analyzed for information as to the quantity and description of the various waste packages. A phased approach to address the retrieval has been selected as having a high probability of success in meeting both the short term needs to support the Waste Receiving and Processing (WRAP) Facility Module 1 (ADS 2220-01) feedstream requirements as well as recognizing the uncertainty of the condition of some of the buried waste. The Record of Decision (ROD) for the Hanford Defense Waste-Environmental Impact Statement (HDW-EIS) approves waste retrieval as the preferred alternative.

Phase 1 Retrieval is the Subproject that provides the retrieval capability as part of the Solid Waste Operations Complex (SWOC) MSA for retrieval, storage and treatment. Phase 1 Retrieval, Project W-113, is directed toward 1 of 25 trenches in which TRU waste is stored, where there is a high probability of retrieving and handling waste packages that are intact and without risk of contamination spread. The selected trench stores 10,000 suspect TRU containers. The trench contains drums, metal, plywood, and fiberglass reinforced plywood boxes. Retrieval of this trench requires approximately 6 years of retrieval operation. The Phase 2 Retrieval Facility, Project W-221 (ADS 2250-00), will address the remaining trenches where some waste containers are expected to be breached.

This Subactivity provides for initiation of construction via fixed price contracts for site preparation and infrastructure (power, sewer, road, telecommunications) and the Trench Enclosure Facility.

RELATED ACTIVITIES NARRATIVE:

This Project is related to Waste Receiving and Processing (WRAP) Facility Module 1, (Project W-026), (ADS 2220-1).

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this ADS reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

Retrieval of waste is required by DOE Orders, and the ROD for the HDW-EIS on waste operations. Retrieval operations must be started, conducted, and completed in a timely manner that will support the operations in the WRAP Facility and avoid further contamination of the environment. The Waste Isolation Pilot Plant (WIPP) current schedules demand the retrievably stored TRU waste be processed and shipped by the end of Calendar Year (CY) 2018 and WRAP construction and operation schedules are keyed towards that processing rate.

ACTIVITY BY PRIORITY:

RL Priority A1. HQ Priority 2, 3, 4, 6. Hanford Site Priority 17. Retrieval of TRU waste in the Burial Grounds is required to prevent breached containers from contaminating the environment. 'The Burial Ground warrants priority management attention to avoid unnecessary increases in worker radiation exposure and cost during cleanup,' as stated in the DOE-HQ Spent Fuel Working Group Report, Volume 1, November 1993.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

FY 1992 workscope completed to date included the FDC revision, PSE revision, and the completion of a Conceptual Design Report (CDR) to validate design costs. This includes submittal of the construction project data sheets.

FY 1993 work included initiation of the Advanced Conceptual Design Report, development of an Supplemental Design Requirements Document (SDRD), conducting a value engineering, preparing a quality assurance plan, initiation of start-up activities, initiating the PSAR, and submittal of the Project Plan.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G No funding to date.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Initiation of construction activities via fixed price contracts for site preparation and infrastructure, and the Trench Enclosure Facility.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
--------------	-------	----------	--------

PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Continue construction activities in support of construction completion in 2Q97.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
--------------	-------	----------	--------

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Continue construction activities in support of construction completion in 2Q97.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

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Waste has been retrievably stored in 25 trenches since 1970. Some waste packaging began approaching their 20 year design life in 1990 and will exceed the design life by 9 to 18 years by the time retrieval operations are initiated in 1998 and completed in 2017. The consequence of delaying retrieval operations could result in containers being stored for 48 years (i.e., 28 years beyond design life). Some of the containers are projected to be breached, which adds complications to the retrieval activities in terms of ALARA, waste retrieval facility design, environmental impacts, increased waste volumes, and retrieval costs.

Retrieval of all TRU waste can best be accomplished via a phased approach in which Phase 1 (W-113) addresses the waste in a single trench that is expected to be essentially structurally intact and contamination free, with Phase 2 Retrieval addressing the balance of intact waste as well as more complex and technically challenging waste that, for at least some of the volume, will have structurally failed packages and release of contamination.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The target and required funding scenarios are the same. The longer waste containers remain in below grade storage, the greater the container degradation will be. Each year that passes, more containers exceed their storage design life. Additional degradation of containers could result in the incremental increase in release of hazardous and radioactive materials.

CONCERNS AT PLANNING LEVEL:

Should retrieval facility funding be any further than shown in the target and decrement cases and cause a schedule delay, additional degradation of waste packages will occur, causing incremental increase in release of hazardous and radioactive materials as well as a significant increase in retrieval costs (in fixed dollars). The latter is caused by the extra expense associated with retrieval of waste that is degraded, has additional problems with handling of the degraded packages and contents, as well as the contaminated earth surrounding the waste packages. Additionally, ALARA

principles encourage early retrieval since additional exposure of staff can be expected when retrieving waste with breached containers. Finally delaying the facility will most likely result in administrative and legal problems related to DOE Orders, EIS, and Tri-Party Agreements.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required. Application of certain technology to waste retrieval will need to be demonstrated.

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OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2200 ADS SUF: 2 SUBACTIVITY: AJ

SUBACTIVITY TITLE: W-113 PHASE 1 RETRIEVAL PROJECT MANAGEMENT

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 94-D-411 TPC: 46900 TEC: 28400

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

		FY1996
B&R		TOTAL
LI 39EW31302		439
TOTAL		439
DIRECT FTE		0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
LI 39EW31302	346	226			444	444	435	0	0
TOTAL	346	226	0		444	444	435	0	0
DIRECT FTE	0	0	0		0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
LI 39EW31302	346	250			492	492	511	0	0
TOTAL	346	250	0		492	492	511	0	0
DIRECT FTE	0	0	0		0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This project supports design, construction and start-up of a facility that will be used to retrieve suspect Transuranic (TRU) waste from the storage trenches. Preliminary studies have been conducted on approaches to be taken in retrieval of waste from 25 trenches at the Hanford Site. Existing records have been analyzed for information as to the quantity and description of the various waste packages. A phased approach to address the retrieval has been selected as having a high probability of success in meeting both the short term needs to support the Waste Receiving and Processing (WRAP) Facility Module 1 (ADS 2220-01) feedstream requirements as well as recognizing the uncertainty of the condition of some of the buried waste. The Record of Decision (ROD) for the Hanford Defense Waste-Environmental Impact Statement (HDW-EIS) approves waste retrieval as the preferred alternative.

Phase 1 Retrieval is the Subproject that provides the retrieval capability as part of the Solid Waste Operations Complex (SWOC) MSA for retrieval, storage and treatment. Phase 1 Retrieval, Project W-113, is directed toward 1 of 25 trenches in which TRU waste is stored, where there is a high probability of retrieving and handling waste packages that are intact and without risk of contamination spread. The selected trench stores 10,000 suspect TRU containers. The trench contains drums, metal, plywood, and fiberglass reinforced plywood boxes. Retrieval of this trench requires approximately 6 years of retrieval operation. The Phase 2 Retrieval Facility, Project W-221 (ADS 2250-00), will address the remaining trenches where some waste containers are expected to be breached.

This Subactivity provides for project management support to facilitate project interface with the Architect/Engineers, Construction Management, and DOE.

RELATED ACTIVITIES NARRATIVE:

This Project is related to Waste Receiving and Processing (WRAP) Facility Module 1, (Project W-026), (ADS 2220-1).

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this ADS reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost avoidance.

Retrieval of waste is required by DOE Orders, and the ROD for the HDW-EIS on waste operations. Retrieval operations must be started, conducted, and completed in a timely manner that will support the operations in the WRAP Facility and avoid further contamination of the environment. The Waste Isolation Pilot Plant (WIPP) current schedules demand the retrievably stored TRU waste be processed and shipped by the end of Calendar Year (CY) 2018 and WRAP construction and operation schedules are keyed towards that processing rate.

ACTIVITY BY PRIORITY:

RL Priority A1. HQ Priority 2, 3, 4, 6. Hanford Site Priority 17. Retrieval of TRU waste in the Burial Grounds is required to prevent breached containers from contaminating the environment. 'The Burial Ground warrants priority management attention to avoid unnecessary increases in worker radiation exposure and cost during cleanup,' as stated in the DOE-HQ Spent Fuel Working Group Report, Volume 1, November 1993.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

FY 1992 workscope completed to date included the FDC revision, PSE revision, and the completion of a Conceptual Design Report (CDR) to validate design costs. This includes submittal of the construction project data sheets.

FY 1993 work included initiation of the Advanced Conceptual Design Report, development of an Supplemental Design Requirements Document (SDRD), conducting a value engineering, preparing a quality assurance plan, initiation of start-up activities, initiating the PSAR, and submittal of the Project Plan.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G Provide project management support.

FY 1995 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Provide project management support.

FY 1996 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Provide project management support.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID TITLE

PLANNING

TARGET

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Provide project management support.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The HDW-EIS ROD commits the U.S. Department of Energy to retrieval of TRU waste. This action is an integral part of the Tri-Party Agreement milestone M-18-00.

The degradation of these waste containers will continue to occur if they are not removed. The waste packages outer structural containment is continually exposed to a humid environment which will cause eventual structural failure. Delaying the retrieval of waste from these conditions can cause additional retrieval costs (breached container retrieval will cost significantly more than retrieval of intact waste packages). Also to be considered is the environmental impact of releasing radioactive and hazardous material to the biosphere. WRAP will be designed and constructed to process the waste for eventual disposal in local sites low level waste or low level mixed waste (LLW or LLMW) or at WIPP (TRU).

WRAP processing schedules are keyed toward obtaining feedstocks at a rate that matches the WIPP delivery requirements (complete shipments by CY 2018), concurrence with minimizing the facility costs that are processing rate dependent. If retrieval is delayed, the processing rate through WRAP will be significantly slowed with acceleration beyond the design basis when retrieval starts.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)

40CFR 60 - (Standards of Performance for New Stationary Sources) 40CFR 61 - (Radiation Emission Standards)

40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)

40CFR 260 - (Hazardous Waste Management System)

40CFR 261 - (Identification and Listing of Hazardous Waste)

40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)

40CFR 264 - (Resource Conservation and Recovery Act (RCRA))

40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)

WAC 173-400 - (General Regulations for Air Pollution Sources)

WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

DOE Order 4700.1A - (Project Management System)

DOE Order 5400.1 - (General Environmental Protection Program)

DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)

DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)

DOE Order 5480.22 - (Technical Safety Requirements)

DOE Order 5480.23 - (Nuclear Safety Analysis Reports)

DOE Order 5480.24 - (Nuclear Criticality Safety)
DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)
DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)
DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS
CAA REGULATIONS
RCRA REGULATIONS
TSCA REGULATIONS

REGULATORY KEY ISSUES:

Waste has been retrievably stored in 25 trenches since 1970. Some waste packaging began approaching their 20 year design life in 1990 and will exceed the design life by 9 to 18 years by the time retrieval operations are initiated in 1998 and completed in 2017. The consequence of delaying retrieval operations could result in containers being stored for 48 years (i.e., 28 years beyond design life). Some of the containers are projected to be breached, which adds complications to the retrieval activities in terms of ALARA, waste retrieval facility design, environmental impacts, increased waste volumes, and retrieval costs.

Retrieval of all TRU waste can best be accomplished via a phased approach in which Phase 1 (W-113) addresses the waste in a single trench that is expected to be essentially structurally intact and contamination free, with Phase 2 Retrieval addressing the balance of intact waste as well as more complex and technically challenging waste that, for at least some of the volume, will have structurally failed packages and release of contamination.

COMP/PROG BENEFITS AT PLANNING LEVEL:

The target and required funding scenarios are the same. The longer waste containers remain in below grade storage, the greater the container degradation will be. Each year that passes, more containers exceed their storage design life. Additional degradation of containers could result in the incremental increase in release of hazardous and radioactive materials.

CONCERNS AT PLANNING LEVEL:

Should retrieval facility funding be any further than shown in the target and decrement cases and cause a schedule delay, additional degradation of waste packages will occur, causing incremental increase in release of hazardous and radioactive materials as well as a significant increase in retrieval costs (in fixed dollars). The latter is caused by the extra expense associated with retrieval of waste that is degraded, has additional problems with handling of the degraded packages and contents, as well as the contaminated earth surrounding the waste packages. Additionally, ALARA

principles encourage early retrieval since additional exposure of staff can be expected when retrieving waste with breached containers. Finally delaying the facility will most likely result in administrative and legal problems related to DOE Orders, EIS, and Tri-Party Agreements.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development required. Application of certain technology to waste retrieval will need to be demonstrated.

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INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2220 ADS SUF: 1 SUBACTIVITY: AA

SUBACTIVITY TITLE: W-026 WRAP 1 PROJECT INTEGRATION

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 91L-EWW-026 TPC: 91200 TEC: 53600

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
	636
TOTAL	636
DIRECT FTE	6

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	638	688	694		694	388	0	0	0
TOTAL	638	688	694	0	694	388	0	0	0
DIRECT FTE	8	6	6	0	6	4	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	638	783	1030		1030	520	-0	0	0
TOTAL	638	783	1030	0	1030	520	-0	0	0
DIRECT FTE	8	6	7	0	7	4	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This Project supports the project technical and support work necessary to design, construct, and operate Waste Receiving and Processing (WRAP) Module 1. WRAP Module 1 is a planned facility that will provide certification and treatment for over 38,000 drums of suspect Transuranic (TRU) solid waste stored at Hanford and provide mixed waste verification sampling capability for waste in storage as well as newly generated wastes. The TRU fraction of these wastes may be transported to and emplaced in the Waste Isolation Pilot Plant (WIPP) in New Mexico. The non-TRU fraction will be segregated for onsite disposal or further processing. WRAP Module 1 will be a new facility located in the 200 West Area of Hanford.

This Project will provide for definitive design, procurement, National Environmental Policy Act (NEPA) documentation, construction testing, and start-up of WRAP 1. This will also include such support activities as preparation of safety documentation, feasibility evaluations, engineering trade-off studies, systems and software development, project management, ALARA studies, waste acceptance criteria, and monitoring of interfaces with other Hanford projects and facilities. This activity will include demonstrations required to support the technical basis, process development, equipment testing and inspection, material selection, operator training, operability testing, preparation of operating procedures, and readiness review.

Crucial technology development needs include non-destructive examination systems, waste handling systems, and identification of waste sampling and characterization requirements and methodologies.

This Subactivity provides project management for financial support and scheduling for WRAP 1 including the following activities: baseline management, change control administration, Site Management System (SMS) implementation, project management plans, document control and records management, project engineering support and the development/maintenance of integrated schedules. Interface with Solid Waste Programs, review activity data sheets, and support Five year planning. Also provides management of Architect/Engineer (A/E), and construction manager. Will provide validation review packages, Energy System Acquisition review support, Independent Cost Estimate support, and the associated reporting to DOE-RL/HQ.

RELATED ACTIVITIES NARRATIVE:

This activity is related to waste retrieval (Phase 1 Retrieval, ADS 2200-02) and storage (Phase V Storage, ADS 2200-01).

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this ADS reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost efficiencies.

The schedule dates and Budget Authority profile in this ADS reflects approval of Tri-Party Agreement change request M-18-90-2 to complete construction in March 1996, and initiate operations in March 1997, with an identified TEC of \$53.6M.

A key operations assumption is that no sample analysis capability is currently provided within the scope of WRAP Module 1. Laboratory support will be available and/or automated field screening capabilities will be added in the future.

A key planning assumption is that WRAP Module 1 construction can be accomplished under interim status. If finalization of the Part B Permit is required, WRAP Module 1 construction schedules will be impacted and new Tri-Party Agreement milestones for completion of construction and start of operations will need to be negotiated with the Environmental Protection Agency (EPA) and the State of Washington Department of Ecology (Ecology).

ACTIVITY BY PRIORITY:

RL Priority B1. Hanford Site Priority 26. HQ Priority 2, 3, 4, 6. The Project is in support of the Tri-Party Milestones M-18-00 (Major TPA), 'Initiate WRAP 1 Operations', and M-18-01 (Interim TPA), 'Complete WRAP 1 Construction.'

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Significant accomplishments have been completed on WRAP Module 1. Completion of activities to support construction includes: approval of Key Decision 1, 2 and 3; Conceptual Design; Definitive Design; issuance of Construction Management Plan by CM; Engineering and Inspection (Title III) contract established and associated reporting complete. In FY94, Request for Quotes (RFQ) process was completed and resulted in identification of an apparent low bidder for the major construction contract. The construction contract will be awarded and construction and procurement activities initiated.

Equipment development activities completed are the design media review to NDE/NDA, building systems, glovebox, and waste handling systems, and associated equipment development and testing activities.

Project documentation completed includes: Supplemental Design Requirements Document (SDRD) revision; Waste Sampling Plan (Chapter 3 of Part B Permit); ICE review; Project Plan; Project Management Plan; initial revision of startup plan; PSAR; initiation of the FSAR; Air Permits; and the NEPA C-2 Analysis. The three Air Permits that are required to construct WRAP 1 have been submitted and returned approved.

Startup activities include preparation and issuance of a Readiness Review plan and continue to staff-up for startup. The FSAR will be initiated. Operations activities will be to establish an organization for the operations and readiness review process.

Procurement activities will include review of contractor vendor submittals for major procurements, procurement of the TRUPACT equipment and preparation of the procurement specification for the Government Furnished Equipment (GFE) Boxed Waste Assay System, and purchase of facility spares.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G Oversight of construction management and Title III Eng/Inspection, Project Plan/Project Management Plan revision, Validation update, ESAR, Construction Project Data Sheet/Activity Data Sheet revisions, and continued reporting to DOE-RL/HQ.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Oversight of construction management and Title III Eng/Inspection, Project Plan/Project Management Plan revision, Validation update, ESAR, Construction Project Data Sheet/Activity Data Sheet revisions, and continued reporting to DOE-RL/HQ.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
2220-01-0045	COMPLETE WRAP 1 CONSTRUCTION (INTERIM - TPA)	3/29/96	3/29/96
2220-01-0050	ISSUE WRAP 1 FSAR REVISION 0	7/31/96	7/31/96

PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Oversight of construction management and Title III Eng/Inspection, Project Plan/Project Management Plan revision, Validation update, ESAR, Construction Project Data Sheet/Activity Data Sheet revisions, and continued reporting to DOE-RL/HQ.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
2220-01-0055	INITIATE WRAP 1 OPERATIONS (MAJOR TPA)	3/31/97	3/31/97

OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Oversight of construction management and Title III Eng/Inspection, Project Plan/Project Management Plan revision, Validation update, ESAR, Construction Project Data Sheet/Activity Data Sheet revisions, and continued reporting to DOE-RL/HQ.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The Department of Energy has written commitments to the Public, the State of Washington, and the Federal Environmental Protection Agency to construct WRAP Module 1 and enable permanent disposal of TRU wastes currently stored at Hanford. These written commitments are in the form of the Record Of Decision (ROD) for the Hanford Defense Waste Environmental Impact Statement (HDW-EIS), which was published in the Federal Register in 1988, and the Tri-Party Agreement (M-18-00) between the U.S. Department of Energy, U.S. Environmental Protection Agency, and the Washington State Department of Ecology, which was signed in 1989. The ROD recognizes the storage of TRU wastes at Hanford is temporary and that WRAP Module 1 is a necessary facility to safely manage the permanent disposal of these wastes. Retrievably stored suspect TRU waste includes some hazardous constituents. The Tri-Party Agreement (M-18-00) recognizes characterizing these wastes in WRAP is an essential part of safely handling the waste in accordance with WAC 173-303.

Characterizing TRU waste is necessary to satisfy the WIPP-Waste Acceptance Criteria (WAC) and the State of New Mexico Hazardous Waste Regulations which includes both radiological and hazardous waste designation.

Hazardous waste characterization is required by various State and Federal regulations to identify dangerous and hazardous waste. Treatment, Storage, Disposal (TSD) facilities are thus mandated to confirm knowledge of waste before storage, treatment, or disposal is allowed. Detailed chemical/physical and biological analysis are required.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)
40CFR 60 - (Standards of Performance for New Stationary Sources) 40CFR 61 - (Radiation Emission Standards)
40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)
40CFR 260 - (Hazardous Waste Management System)
40CFR 261 - (Identification and Listing of Hazardous Waste)
40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)
40CFR 264 - (Resource Conservation and Recovery Act (RCRA))
40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)
WAC 173-400 - (General Regulations for Air Pollution Sources)
WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

DOE Order 4700.1A - (Project Management System)
DOE Order 5400.1 - (General Environmental Protection Program)
DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)

DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)
DOE Order 5480.22 - (Technical Safety Requirements)
DOE Order 5480.23 - (Nuclear Safety Analysis Reports)
DOE Order 5480.24 - (Nuclear Criticality Safety)
DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)
DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)
DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS
CAA REGULATIONS
RCRA REGULATIONS
TSCA REGULATIONS

REGULATORY KEY ISSUES:

The only clearly identified key issue is the question of how to sample the waste to effect acceptable characterization. Final resolution will occur through Resource Conservation and Recovery Act (RCRA) Part B Permit negotiations with the State of Washington Department of Ecology.

COMP/PROG BENEFITS AT PLANNING LEVEL:

No impacts at the planning level.

CONCERNS AT PLANNING LEVEL:

The storage of TRU waste drums began at Hanford in 1970, with the objective they would be retrieved within 20 years. By the planned start-up of WRAP Module 1 in 1997, some of these drums will have been in underground storage for 27 years. This extended storage has already contributed to the deterioration of these drums, complicating retrieval, handling, and on-site transportation of these drums. Deferral or complete non-support for WRAP Module 1 will increase deterioration of containers resulting in loss of containment and potential contamination of soils adjacent to containers and increased worker radiation exposure potential during retrieval, transportation, and handling in WRAP Module 1. Deferral of WRAP Module 1 will delay compliance with Tri-Party Agreement milestone and implementation of the HDW-EIS ROD.

The operations activities, based on the target and decrement case funding shortfalls in FY 1996 (\$5,275K and \$7,867K respectively), will be phased such that the low level waste line will be operational to meet the M-18 TPA milestone, but the TRU line will not be operational. The planning case provides funding for the staffing increases to startup the TRU line. In the target case the TRU line will become operational in FY 1998. In the subsequent years, funding is provided to fully operate the facility.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development is required. Equipment development, prototyping, design, procurement, mock-up, and testing is necessary.

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2220 ADS SUF: 1 SUBACTIVITY: AB

SUBACTIVITY TITLE: W-026 WRAP 1 SYSTEMS ENGINEERING

INSTALLATION: HANFORD

CATEGORY: WM

DEFENSE/NON-DEFENSE:

VERSION DATE: 5/12/93

PROGRAM: EM

PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 91L-EWW-026 TPC: 91200 TEC: 53600

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996
OE EW3130020		TOTAL
		162
TOTAL		162
DIRECT FTE		1

TARGET CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020		853	218	162		162	69	0	0	0
TOTAL		853	218	162	0	162	69	0	0	0
DIRECT FTE		4	2	1	0	1	1	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

		FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	B&R	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020		853	243	392		392	99	0	0	0
TOTAL		853	243	392	0	392	99	0	0	0
DIRECT FTE		4	2	2	0	2	1	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This Project supports the project technical and support work necessary to design, construct, and operate Waste Receiving and Processing (WRAP) Module 1. WRAP Module 1 is a planned facility that will provide certification and treatment for over 38,000 drums of suspect Transuranic (TRU) solid waste stored at Hanford and provide mixed waste verification sampling capability for waste in storage as well as newly generated wastes. The TRU fraction of these wastes may be transported to and emplaced in the Waste Isolation Pilot Plant (WIPP) in New Mexico. The non-TRU fraction will be segregated for onsite disposal or further processing. WRAP Module 1 will be a new facility located in the 200 West Area of Hanford.

This Project will provide for definitive design, procurement, National Environmental Policy Act (NEPA) documentation, construction testing, and start-up of WRAP 1. This will also include such support activities as preparation of safety documentation, feasibility evaluations, engineering trade-off studies, systems and software development, project management, ALARA studies, waste acceptance criteria, and monitoring of interfaces with other Hanford projects and facilities. This activity will include demonstrations required to support the technical basis, process development, equipment testing and inspection, material selection, operator training, operability testing, preparation of operating procedures, and readiness review.

Crucial technology development needs include non-destructive examination systems, waste handling systems, and identification of waste sampling and characterization requirements and methodologies.

This Subactivity provides preparation/maintenance of the waste sampling plan, and Supplemental Design Requirements Document (SDRD). Additionally, will provide technical interface with Solid Waste Projects, the Architect/Engineer, and the Solid Waste Program Office. Will provide review of design media, submittals, and witnessing ATP's for facility and material handling systems, NDE/NDA systems.

RELATED ACTIVITIES NARRATIVE:

This activity is related to waste retrieval (Phase 1 Retrieval, ADS 2200-02) and storage (Phase V Storage, ADS 2200-01).

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this ADS reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost efficiencies.

The schedule dates and Budget Authority profile in this ADS reflects approval of Tri-Party Agreement change request M-18-90-2 to complete construction in March 1996, and initiate operations in March 1997, with an identified TEC of \$53.6M.

A key operations assumption is that no sample analysis capability is currently provided within the scope of WRAP Module 1. Laboratory support will be available and/or automated field screening capabilities will be added in the future.

A key planning assumption is that WRAP Module 1 construction can be accomplished under interim status. If finalization of the Part B Permit is required, WRAP Module 1 construction schedules will be impacted and new Tri-Party Agreement milestones for completion of construction and start of operations will need to be negotiated with the Environmental Protection Agency (EPA) and the State of Washington Department of Ecology (Ecology).

ACTIVITY BY PRIORITY:

RL Priority B1. Hanford Site Priority 26. HQ Priority 2, 3, 4, 6. The Project is in support of the Tri-Party Milestones M-18-00 (Major TPA), 'Initiate WRAP 1 Operations', and M-18-01 (Interim TPA), 'Complete WRAP 1 Construction.'

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Significant accomplishments have been completed on WRAP Module 1. Completion of activities to support construction includes: approval of Key Decision 1, 2 and 3; Conceptual Design; Definitive Design; issuance of Construction Management Plan by CM; Engineering and Inspection (Title III) contract established and associated reporting complete. In FY94, Request for Quotes (RFQ) process was completed and resulted in identification of an apparent low bidder for the major construction contract. The construction contract will be awarded and construction and procurement activities initiated.

Equipment development activities completed are the design media review to NDE/NDA, building systems, glovebox, and waste handling systems, and associated equipment development and testing activities.

Project documentation completed includes: Supplemental Design Requirements Document (SDRD) revision; Waste Sampling Plan (Chapter 3 of Part B Permit); ICE review; Project Plan; Project Management Plan; initial revision of startup plan; PSAR; initiation of the FSAR; Air Permits; and the NEPA C-2 Analysis. The three Air Permits that are required to construct WRAP 1 have been submitted and returned approved.

Startup activities include preparation and issuance of a Readiness Review plan and continue to staff-up for startup. The FSAR will be initiated. Operations activities will be to establish an organization for the operations and readiness review process.

Procurement activities will include review of contractor vendor submittals for major procurements, procurement of the TRUPACT equipment and preparation of the procurement specification for the Government Furnished Equipment (GFE) Boxed Waste Assay System, and purchase of facility spares.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G Review of WRAP 1 Contractor Vendor submittals (for major procurements), revise SDRD, and issue Waste Sampling Plan.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Review of WRAP 1 Contractor Vendor submittals (for major procurements), and revise SDRD.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Review of WRAP 1 Contractor Vendor submittals (for major procurements), and revise SDRD.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Review of WRAP 1 Contractor Vendor submittals (for major procurements), and revise SDRD.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The Department of Energy has written commitments to the Public, the State of Washington, and the Federal Environmental Protection Agency to construct WRAP Module 1 and enable permanent disposal of TRU wastes currently stored at Hanford. These written commitments are in the form of the Record Of Decision (ROD) for the Hanford Defense Waste Environmental Impact Statement (HDW-EIS), which was published in the Federal Register in 1988, and the Tri-Party Agreement (M-18-00) between the U.S. Department of Energy, U.S. Environmental Protection Agency, and the Washington State Department of Ecology, which was signed in 1989. The ROD recognizes the storage of TRU wastes at Hanford is temporary and that WRAP Module 1 is a necessary facility to safely manage the permanent disposal of these wastes. Retrievably stored suspect TRU waste includes some hazardous constituents. The Tri-Party Agreement (M-18-00) recognizes characterizing these wastes in WRAP is an essential part of safely handling the waste in accordance with WAC 173-303.

Characterizing TRU waste is necessary to satisfy the WIPP-Waste Acceptance Criteria (WAC) and the State of New Mexico Hazardous Waste Regulations which includes both radiological and hazardous waste designation.

Hazardous waste characterization is required by various State and Federal regulations to identify dangerous and hazardous waste. Treatment, Storage, Disposal (TSD) facilities are thus mandated to confirm knowledge of waste before storage, treatment, or disposal is allowed. Detailed chemical/physical and biological analysis are required.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)
40CFR 60 - (Standards of Performance for New Stationary Sources) 40CFR 61 - (Radiation Emission Standards)
40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)
40CFR 260 - (Hazardous Waste Management System)
40CFR 261 - (Identification and Listing of Hazardous Waste)
40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)
40CFR 264 - (Resource Conservation and Recovery Act (RCRA))
40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)
WAC 173-400 - (General Regulations for Air Pollution Sources)
WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

DOE Order 4700.1A - (Project Management System)
DOE Order 5400.1 - (General Environmental Protection Program)
DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)

DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)
DOE Order 5480.22 - (Technical Safety Requirements)
DOE Order 5480.23 - (Nuclear Safety Analysis Reports)
DOE Order 5480.24 - (Nuclear Criticality Safety)
DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)
DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)
DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS
CAA REGULATIONS
RCRA REGULATIONS
TSCA REGULATIONS

REGULATORY KEY ISSUES:

The only clearly identified key issue is the question of how to sample the waste to effect acceptable characterization. Final resolution will occur through Resource Conservation and Recovery Act (RCRA) Part B Permit negotiations with the State of Washington Department of Ecology.

COMP/PROG BENEFITS AT PLANNING LEVEL:
No impacts at the planning level.

CONCERNS AT PLANNING LEVEL:

The storage of TRU waste drums began at Hanford in 1970, with the objective they would be retrieved within 20 years. By the planned start-up of WRAP Module 1 in 1997, some of these drums will have been in underground storage for 27 years. This extended storage has already contributed to the deterioration of these drums, complicating retrieval, handling, and on-site transportation of these drums. Deferral or complete non-support for WRAP Module 1 will increase deterioration of containers resulting in loss of containment and potential contamination of soils adjacent to containers and increased worker radiation exposure potential during retrieval, transportation, and handling in WRAP Module 1. Deferral of WRAP Module 1 will delay compliance with Tri-Party Agreement milestone and implementation of the HDW-EIS ROD.

The operations activities, based on the target and decrement case funding shortfalls in FY 1996 (\$5,275K and \$7,867K respectively), will be phased such that the low level waste line will be operational to meet the M-18 TPA milestone, but the TRU line will not be operational. The planning case provides funding for the staffing increases to startup the TRU line. In the target case the TRU line will become operational in FY 1998. In the subsequent years, funding is provided to fully operate the facility.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development is required. Equipment development, prototyping, design, procurement, mock-up, and testing is necessary.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2220 ADS SUF: 1 SUBACTIVITY: AC

SUBACTIVITY TITLE: W-026 WRAP 1 OPERATIONAL PREPAREDNESS AND STARTUP

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 91L-EWW-026 TPC: 91200 TEC: 53600

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
	4464
TOTAL	4464
DIRECT FTE	44

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	586	921	4464			4464	2312	0	0
CE 35EW31302	500	0			0	0	0	0	0
TOTAL	1086	921	4464		0	4464	2312	0	0
DIRECT FTE	4	9	44		0	44	23	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	586	1025	5925			5925	2686	0	0
CE 35EW31302	500	0	0			0	0	0	0
TOTAL	1086	1025	5925		0	5925	2686	0	0
DIRECT FTE	4	9	50		0	50	23	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This Project supports the project technical and support work necessary to design, construct, and operate Waste Receiving and Processing (WRAP) Module 1. WRAP Module 1 is a planned facility that will provide certification and treatment for over 38,000 drums of suspect Transuranic (TRU) solid waste stored at Hanford, as well as wastes that will be generated after 1990. The TRU fraction of these wastes may be transported to and emplaced in the Waste Isolation Pilot Plant (WIPP) in New Mexico. The non-TRU fraction will be segregated for onsite disposal or further processing. WRAP Module 1 will be a new facility located in the 200 West Area of Hanford.

This Project will provide for definitive design, procurement, National Environmental Policy Act (NEPA) documentation, construction testing, and start-up of WRAP 1. This will also include such support activities as preparation of safety documentation, feasibility evaluations, engineering trade-off studies, systems and software development, project management, ALARA studies, waste acceptance criteria, and monitoring of interfaces with other Hanford projects and facilities. This activity will include demonstrations required to support the technical basis, process development, equipment testing and inspection, material selection, operator training, operability testing, preparation of operating procedures, and readiness review.

Crucial technology development needs include non-destructive examination systems, waste handling systems, and identification of waste sampling and characterization requirements and methodologies.

This Subactivity provides operational preparedness and startup planning associated with the total project cost for WRAP 1. Will provide management review and engineering support to review project documents and responding information requests. Provide expertise to review the adequacy of vendor design and concepts from a facility operations feasibility perspective. Support planning and integration efforts including support permitting activities.

RELATED ACTIVITIES NARRATIVE:

This activity is related to waste retrieval (Phase 1 Retrieval, Project W-113) and storage (Phase V Storage, Project W-112).

KEY ASSUMPTIONS:

The schedule dates and Budget Authority profile in this ADS reflects approval of Tri-Party Agreement change request M-18-90-2 to complete construction in March 1996, and initiate operations in March 1997, with an identified TEC of \$53.6M.

A key operations assumption is that no sample analysis capability is currently provided within the scope of WRAP Module 1. Laboratory support will be available and/or automated field screening capabilities will be

added in the future.

A key planning assumption is that WRAP Module 1 construction can be accomplished under interim status. If finalization of the Part B Permit is required, WRAP Module 1 construction schedules will be impacted and new Tri-Party Agreement milestones for completion of construction and start of operations will need to be negotiated with the Environmental Protection Agency (EPA) and the State of Washington Department of Ecology (Ecology).

ACTIVITY BY PRIORITY:

RL Priority A2. HQ Priority 1. The Project is in support of the Tri-Party Milestones M-18-00 (Major TPA), 'Initiate WRAP 1 Operations', and M-18-01 (Interim TPA), 'Complete WRAP 1 Construction'.

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Significant tasks completed to date include: Initial revision of WRAP startup plan, and reviews of design media review to NDE/NDA, building systems, glovebox, and waste handling systems.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

Prepare draft Readiness Review plan, issue Readiness Review Plan, and Review of WRAP 1 Contractor Vendor submittals (for major procurements).

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

Review of WRAP 1 Contractor Vendor submittals (for major procurements), and revise SDRD.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

Review of WRAP 1 Contractor Vendor submittals (for major procurements), develop Operational Test Procedures, and initiate 'Cold runs' for the WRAP facility.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

Complete operational cold runs of facility, continue with operational training, and complete Operational Test Procedures.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The Department of Energy has written commitments to the Public, the State of Washington, and the Federal Environmental Protection Agency to construct WRAP Module 1 and enable permanent disposal of TRU wastes currently stored at Hanford. These written commitments are in the form of the Record Of Decision (ROD) for the Hanford Defense Waste Environmental Impact Statement (HDW-EIS), which was published in the Federal Register in 1988, and the Tri-Party Agreement (M-18-00) between the U.S. Department of Energy, U.S. Environmental Protection Agency, and the Washington State Department of Ecology, which was signed in 1989. The ROD recognizes the storage of TRU wastes at Hanford is temporary and that WRAP Module 1 is a necessary facility to safely manage the permanent disposal of these wastes. Retrievably stored suspect TRU waste includes some hazardous constituents. The Tri-Party Agreement (M-18-00) recognizes characterizing these wastes in WRAP is an essential part of safely handling the waste in accordance with WAC 173-303.

Characterizing TRU waste is necessary to satisfy the WIPP-Waste Acceptance Criteria (WAC) and the State of New Mexico Hazardous Waste Regulations which includes both radiological and hazardous waste designation.

Hazardous waste characterization is required by various State and Federal regulations to identify dangerous and hazardous waste. TSD facilities are thus mandated to confirm knowledge of waste before storage, treatment, or disposal is allowed. Detailed chemical/physical and biological analysis are required.

Applicable Regulatory Statutes:

CODE OF FEDERAL REGULATIONS

10CFR 835 - (Extant, but not yet implemented)
29CFR 1910 - (Occupational Safety and Health Standards) 29CFR 1910.120 - (OSHA Training Schedule)
40CFR 191-03(b) - (Radioactive waste storage)
40CFR 60 - (Standards of Performance for New Stationary Sources)
40CFR 61 - (Radiation Emission Standards)
40CFR 61-92 - (Control of radionuclide air emissions)
40CFR 260 - (Hazardous Waste Management System)
40CFR 261 - (Identification and Listing of Hazardous Waste)
40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)
40CFR 264 - (Resource Conservation and Recovery Act (RCRA))
40CFR 264-14 - (Security of a TSD facility)
40CFR 264-17- (Requirements for ignitable, reactive or incompatible waste)
40CFR 264-175(a-b) - (Containment)
40CFR 264-176 - (special requirements for ignitable or reactive wastes)
40CFR 264-177(c) - (Special requirements for incompatible wastes)
40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)
40CFR 268-7(a) - (Certification LDR requirements)
40CFR 268-9(a) - (Need waste code)
40CFR 268-3(j)(1-2) - (Need test for corrosive and halogens)

40CFR 270 - (EPA Administered Permit Programs: The Hazardous Waste Permit Program)
40CFR 761-65(2-4) - (Storage for disposal - PCB)
40CFR 761-180 - (Records and reports - PCB)
49CFR 173 - DOT General Requirements for Shipping and Packaging

FEDERAL REGISTER

55FR 22669-22670 - (Periodic verification analysis)
57FR 37194 - (Debris Rule)

WASHINGTON ADMINISTRATIVE CODE STATUTES, WASHINGTON STATE REGULATIONS

WAC 173-216 - (State Waste Discharge Permit Program (Contains BAT/AKART))
WAC 173-303 - (Dangerous Waste Regulations)
WAC 173-303-141 - (Receive only designated waste) WAC 173-303-283(3) - (Performance standards)
WAC 173-303-300 - (Waste analysis)
WAC 173-303-310(2) - (Security)
WAC 173-303-320 - (Inspections)
WAC 173-303-330 - (Training)
WAC 173-303-340 - (Preparedness)
WAC 173-303-350 - (Contingencies)
WAC 173-303-355 - (SARA III)
WAC 173-303-370 - (Manifests)
WAC 173-303-380 - (Record keeping)
WAC 173-303-390 - (Reporting)
WAC 173-303-395(1,2,4) - (Other general requirements) WAC 173-303-400 - (Interim status standards)
WAC 173-303-630(2,5,7,8,9) - (Use and management of containers)
WAC 173-307 - (Hazardous Waste Reduction Regulations)
WAC 173-400 - (General Regulations for Air Pollution Sources)
WAC 296-155 - (Washington Industrial Safety and Health Act)

DOE ORDERS, DEPARTMENT OF ENERGY

DOE Order 2200.12A - (Financial Management Systems)
DOE Order 2250.1D - (Cost and Schedule Control Systems Criteria)
DOE Order 4320.2 - (Capital Asset Management Process)
DOE Order 4330.4A - (Maintenance Management Program)
DOE Order 4700.1A - (Project Management System)
DOE Order 5400.1 - (General Environmental Protection Program)
DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)
DOE Order 5440.1E - (National Environmental Policy Act Compliance Program)
DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)
DOE Order 5480.11 - (Radiation Protection for Occupational Workers (ALARA))
DOE Order 5480.19 - (Conduct of Operations Requirements for DOE Facilities)
DOE Order 5480.20 - (Personnel Selection, Qualification, Training, and Staffing Requirements at DOE Reactor and Non-Reactor Nuclear Facilities)
DOE Order 5480.21 - (Unreviewed Safety Questions)
DOE Order 5480.22 - (Technical Safety Requirements)
DOE Order 5480.23 - (Nuclear Safety Analysis Reports)
DOE Order 5480.24 - (Nuclear Criticality Safety)
DOE Order 5480.3 - (Safety Requirements for the Packaging and

Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)

DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)

DOE Order 5480.5 - (Safety of Nuclear Facilities)

DOE Order 5481.1B - (Safety Analysis and Review System)

DOE Order 5700.2D - (Cost Estimating, Analysis, and Standardization Quality Assurance)

DOE Order 5700.7C - (Work Authorization)

DOE Order 5820.2A - (Radioactive Waste Management)

DOE Order 6430.1A - (General Design Criteria)

NESHAP, National Emission Standards for Hazardous Air Pollutants

REGULATORY KEY ISSUES:

The only clearly identified key issue is the question of how to sample the waste to effect acceptable characterization. Final resolution will occur through Resource Conservation and Recovery Act (RCRA) Part B Permit negotiations with the State of Washington Department of Ecology.

COMP/PROG BENEFITS AT PLANNING LEVEL:

No impacts at the planning level.

CONCERNS AT PLANNING LEVEL:

The storage of TRU waste drums began at Hanford in 1970, with the objective they would be retrieved within 20 years. By the planned start-up of WRAP Module 1 in 1997, some of these drums will have been in underground storage for 27 years. This extended storage has already contributed to the deterioration of these drums, complicating retrieval, handling, and on-site transportation of these drums. Deferral or complete non-support for WRAP Module 1 will increase deterioration of containers resulting in loss of containment and potential contamination of soils adjacent to containers and increased worker radiation exposure potential during retrieval, transportation, and handling in WRAP Module 1. Deferral of WRAP Module 1 will delay compliance with Tri-Party Agreement milestone and implementation of the HDW-EIS ROD.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development is required. Equipment development, prototyping, design, procurement, mock-up, and testing is necessary.

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OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2220 ADS SUF: 1 SUBACTIVITY: AD

SUBACTIVITY TITLE: W-026 WRAP 1 EQUIP DEVELOPMENT AND TESTING

INSTALLATION: HANFORD

CATEGORY: WM

DEFENSE/NON-DEFENSE:

VERSION DATE: 5/12/93

PROGRAM: EM

PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 91L-EWW-026

TPC: 91200

TEC: 53600

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996 TOTAL
OE EW3130020		365
TOTAL		365
DIRECT FTE		4

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020	919	503	365		365	136	0	0	0
TOTAL	919	503	365	0	365	136	0	0	0
DIRECT FTE	5	5	4	0	4	2	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
	RL	BUD	LEGAL	ESH	TOTAL				
OE EW3130020	919	589	903		903	199	0	0	0
TOTAL	919	589	903	0	903	199	0	0	0
DIRECT FTE	5	5	4	0	4	2	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This Project supports the project technical and support work necessary to design, construct, and operate Waste Receiving and Processing (WRAP) Module 1. WRAP Module 1 is a planned facility that will provide certification and treatment for over 38,000 drums of suspect Transuranic (TRU) solid waste stored at Hanford and provide mixed waste verification sampling capability for waste in storage as well as newly generated wastes. The TRU fraction of these wastes may be transported to and emplaced in the Waste Isolation Pilot Plant (WIPP) in New Mexico. The non-TRU fraction will be segregated for onsite disposal or further processing. WRAP Module 1 will be a new facility located in the 200 West Area of Hanford.

This Project will provide for definitive design, procurement, National Environmental Policy Act (NEPA) documentation, construction testing, and start-up of WRAP 1. This will also include such support activities as preparation of safety documentation, feasibility evaluations, engineering trade-off studies, systems and software development, project management, ALARA studies, waste acceptance criteria, and monitoring of interfaces with other Hanford projects and facilities. This activity will include demonstrations required to support the technical basis, process development, equipment testing and inspection, material selection, operator training, operability testing, preparation of operating procedures, and readiness review.

Crucial technology development needs include non-destructive examination systems, waste handling systems, and identification of waste sampling and characterization requirements and methodologies.

This Subactivity provides technical engineering direction, coordination and development support for construction package #2/Enclosures and Compactors, drop testing of 'one-trip drum', test aerosol can puncture device and provide technical support. Review of design media, and vendor submittals.

RELATED ACTIVITIES NARRATIVE:

This activity is related to waste retrieval (Phase 1 Retrieval, ADS 2200-02) and storage (Phase V Storage, ADS 2200-01).

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this ADS reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost efficiencies.

The schedule dates and Budget Authority profile in this ADS reflects approval of Tri-Party Agreement change request M-18-90-2 to complete construction in March 1996, and initiate operations in March 1997, with an identified TEC of \$53.6M.

A key operations assumption is that no sample analysis capability is

currently provided within the scope of WRAP Module 1. Laboratory support will be available and/or automated field screening capabilities will be added in the future.

A key planning assumption is that WRAP Module 1 construction can be accomplished under interim status. If finalization of the Part B Permit is required, WRAP Module 1 construction schedules will be impacted and new Tri-Party Agreement milestones for completion of construction and start of operations will need to be negotiated with the Environmental Protection Agency (EPA) and the State of Washington Department of Ecology (Ecology).

ACTIVITY BY PRIORITY:

RL Priority B1. Hanford Site Priority 26. HQ Priority 2, 3, 4, 6. The Project is in support of the Tri-Party Milestones M-18-00 (Major TPA), 'Initiate WRAP 1 Operations', and M-18-01 (Interim TPA), 'Complete WRAP 1 Construction.'

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Significant accomplishments have been completed on WRAP Module 1. Completion of activities to support construction includes: approval of Key Decision 1, 2 and 3; Conceptual Design; Definitive Design; issuance of Construction Management Plan by CM; Engineering and Inspection (Title III) contract established and associated reporting complete. In FY94, Request for Quotes (RFQ) process was completed and resulted in identification of an apparent low bidder for the major construction contract. The construction contract will be awarded and construction and procurement activities initiated.

Equipment development activities completed are the design media review to NDE/NDA, building systems, glovebox, and waste handling systems, and associated equipment development and testing activities.

Project documentation completed includes: Supplemental Design Requirements Document (SDRD) revision; Waste Sampling Plan (Chapter 3 of Part B Permit); ICE review; Project Plan; Project Management Plan; initial revision of startup plan; PSAR; initiation of the FSAR; Air Permits; and the NEPA C-2 Analysis. The three Air Permits that are required to construct WRAP 1 have been submitted and returned approved.

Startup activities include preparation and issuance of a Readiness Review plan and continue to staff-up for startup. The FSAR will be initiated. Operations activities will be to establish an organization for the operations and readiness review process.

Procurement activities will include review of contractor vendor submittals for major procurements, procurement of the TRUPACT equipment and

preparation of the procurement specification for the Government Furnished Equipment (GFE) Boxed Waste Assay System, and purchase of facility spares.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G Review of WRAP 1 Contractor Vendor submittals (for major procurements), submit final drum drop test, complete aerosol can puncture test, and issue revised equipment development plan.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Provide support to readiness review/startup activities and support to system testing of equipment.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Provide support to readiness review/startup activities.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G No outyears activities planned.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The Department of Energy has written commitments to the Public, the State of Washington, and the Federal Environmental Protection Agency to construct WRAP Module 1 and enable permanent disposal of TRU wastes currently stored at Hanford. These written commitments are in the form of the Record Of Decision (ROD) for the Hanford Defense Waste Environmental Impact Statement (HDW-EIS), which was published in the Federal Register in 1988, and the Tri-Party Agreement (M-18-00) between the U.S. Department of Energy, U.S. Environmental Protection Agency, and the Washington State Department of Ecology, which was signed in 1989. The ROD recognizes the storage of TRU wastes at Hanford is temporary and that WRAP Module 1 is a necessary facility to safely manage the permanent disposal of these wastes. Retrievably stored suspect TRU waste includes some hazardous constituents. The Tri-Party Agreement (M-18-00) recognizes characterizing these wastes in WRAP is an essential part of safely handling the waste in accordance with WAC 173-303.

Characterizing TRU waste is necessary to satisfy the WIPP-Waste Acceptance Criteria (WAC) and the State of New Mexico Hazardous Waste Regulations which includes both radiological and hazardous waste designation.

Hazardous waste characterization is required by various State and Federal regulations to identify dangerous and hazardous waste. Treatment, Storage, Disposal (TSD) facilities are thus mandated to confirm knowledge of waste before storage, treatment, or disposal is allowed. Detailed chemical/physical and biological analysis are required.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)
40CFR 60 - (Standards of Performance for New Stationary Sources) 40CFR 61 - (Radiation Emission Standards)
40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)
40CFR 260 - (Hazardous Waste Management System)
40CFR 261 - (Identification and Listing of Hazardous Waste)
40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)
40CFR 264 - (Resource Conservation and Recovery Act (RCRA))
40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)
WAC 173-400 - (General Regulations for Air Pollution Sources)
WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

DOE Order 4700.1A - (Project Management System)
DOE Order 5400.1 - (General Environmental Protection Program)
DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)

DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)
DOE Order 5480.22 - (Technical Safety Requirements)
DOE Order 5480.23 - (Nuclear Safety Analysis Reports)
DOE Order 5480.24 - (Nuclear Criticality Safety)
DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)
DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)
DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS
CAA REGULATIONS
RCRA REGULATIONS
TSCA REGULATIONS

REGULATORY KEY ISSUES:

The only clearly identified key issue is the question of how to sample the waste to effect acceptable characterization. Final resolution will occur through Resource Conservation and Recovery Act (RCRA) Part B Permit negotiations with the State of Washington Department of Ecology.

COMP/PROG BENEFITS AT PLANNING LEVEL:
No impacts at the planning level.

CONCERNS AT PLANNING LEVEL:

The storage of TRU waste drums began at Hanford in 1970, with the objective they would be retrieved within 20 years. By the planned start-up of WRAP Module 1 in 1997, some of these drums will have been in underground storage for 27 years. This extended storage has already contributed to the deterioration of these drums, complicating retrieval, handling, and on-site transportation of these drums. Deferral or complete non-support for WRAP Module 1 will increase deterioration of containers resulting in loss of containment and potential contamination of soils adjacent to containers and increased worker radiation exposure potential during retrieval, transportation, and handling in WRAP Module 1. Deferral of WRAP Module 1 will delay compliance with Tri-Party Agreement milestone and implementation of the HDW-EIS ROD.

The operations activities, based on the target and decrement case funding shortfalls in FY 1996 (\$5,275K and \$7,867K respectively), will be phased such that the low level waste line will be operational to meet the M-18 TPA milestone, but the TRU line will not be operational. The planning case provides funding for the staffing increases to startup the TRU line. In the target case the TRU line will become operational in FY 1998. In the subsequent years, funding is provided to fully operate the facility.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development is required. Equipment development, prototyping, design, procurement, mock-up, and testing is necessary.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2220 ADS SUF: 1 SUBACTIVITY: AE

SUBACTIVITY TITLE: W-026 WRAP 1 ENVIRONMENTAL SAFETY AND QA

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 91L-EWW-026 TPC: 91200 TEC: 53600

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996
OE EW3130020	TOTAL
	486
TOTAL	486
DIRECT FTE	4

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	1181	488	486			486	377	0	0
TOTAL	1181	488	486	0		486	377	0	0
DIRECT FTE	7	4	4	0		4	3	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R		RL	BUD	LEGAL	ESH	TOTAL			
OE EW3130020	1181	497	459			459	383	0	0
TOTAL	1181	497	459	0		459	383	0	0
DIRECT FTE	7	4	4	0		4	3	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This Project supports the project technical and support work necessary to design, construct, and operate Waste Receiving and Processing (WRAP) Module 1. WRAP Module 1 is a planned facility that will provide certification and treatment for over 38,000 drums of suspect Transuranic (TRU) solid waste stored at Hanford and provide mixed waste verification sampling capability for waste in storage as well as newly generated wastes. The TRU fraction of these wastes may be transported to and emplaced in the Waste Isolation Pilot Plant (WIPP) in New Mexico. The non-TRU fraction will be segregated for onsite disposal or further processing. WRAP Module 1 will be a new facility located in the 200 West Area of Hanford.

This Project will provide for definitive design, procurement, National Environmental Policy Act (NEPA) documentation, construction testing, and start-up of WRAP 1. This will also include such support activities as preparation of safety documentation, feasibility evaluations, engineering trade-off studies, systems and software development, project management, ALARA studies, waste acceptance criteria, and monitoring of interfaces with other Hanford projects and facilities. This activity will include demonstrations required to support the technical basis, process development, equipment testing and inspection, material selection, operator training, operability testing, preparation of operating procedures, and readiness review.

Crucial technology development needs include non-destructive examination systems, waste handling systems, and identification of waste sampling and characterization requirements and methodologies.

This Subactivity provides management review and engineering support to include review of project documents and responding to information requests. Will provide for Preliminary Safety Analysis Report (PSAR), and initiation of Final Safety Analysis Report (FSAR). Will provide update to Quality Assurance Project Plan, and oversight of permit development and updates.

RELATED ACTIVITIES NARRATIVE:

This activity is related to waste retrieval (Phase 1 Retrieval, ADS 2200-02) and storage (Phase V Storage, ADS 2200-01).

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this ADS reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost efficiencies.

The schedule dates and Budget Authority profile in this ADS reflects approval of Tri-Party Agreement change request M-18-90-2 to complete construction in March 1996, and initiate operations in March 1997, with an identified TEC of \$53.6M.

A key operations assumption is that no sample analysis capability is currently provided within the scope of WRAP Module 1. Laboratory support will be available and/or automated field screening capabilities will be added in the future.

A key planning assumption is that WRAP Module 1 construction can be accomplished under interim status. If finalization of the Part B Permit is required, WRAP Module 1 construction schedules will be impacted and new Tri-Party Agreement milestones for completion of construction and start of operations will need to be negotiated with the Environmental Protection Agency (EPA) and the State of Washington Department of Ecology (Ecology).

ACTIVITY BY PRIORITY:

RL Priority B1. Hanford Site Priority 26. HQ Priority 2, 3, 4, 6. The Project is in support of the Tri-Party Milestones M-18-00 (Major TPA), 'Initiate WRAP 1 Operations', and M-18-01 (Interim TPA), 'Complete WRAP 1 Construction.'

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Significant accomplishments have been completed on WRAP Module 1. Completion of activities to support construction includes: approval of Key Decision 1, 2 and 3; Conceptual Design; Definitive Design; issuance of Construction Management Plan by CM; Engineering and Inspection (Title III) contract established and associated reporting complete. In FY94, Request for Quotes (RFQ) process was completed and resulted in identification of an apparent low bidder for the major construction contract. The construction contract will be awarded and construction and procurement activities initiated.

Equipment development activities completed are the design media review to NDE/NDA, building systems, glovebox, and waste handling systems, and associated equipment development and testing activities.

Project documentation completed includes: Supplemental Design Requirements Document (SDRD) revision; Waste Sampling Plan (Chapter 3 of Part B Permit); ICE review; Project Plan; Project Management Plan; initial revision of startup plan; PSAR; initiation of the FSAR; Air Permits; and the NEPA C-2 Analysis. The three Air Permits that are required to construct WRAP 1 have been submitted and returned approved.

Startup activities include preparation and issuance of a Readiness Review plan and continue to staff-up for startup. The FSAR will be initiated. Operations activities will be to establish an organization for the operations and readiness review process.

Procurement activities will include review of contractor vendor submittals

for major procurements, procurement of the TRUPACT equipment and preparation of the procurement specification for the Government Furnished Equipment (GFE) Boxed Waste Assay System, and purchase of facility spares.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G Issue PSAR and initiate FSAR, update permits as required, prepare NOD response table, and issue criticality assessment to SWIP.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Provide issuance of FSAR, update RCRA Part B as required, continue safety/QA support, and provide support to readiness review/startup activities.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Provide QA/Safety support to readiness review/startup activities, and provide updates to RCRA Part B as required.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G No outyears activities planned.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The Department of Energy has written commitments to the Public, the State of Washington, and the Federal Environmental Protection Agency to construct WRAP Module 1 and enable permanent disposal of TRU wastes currently stored at Hanford. These written commitments are in the form of the Record Of Decision (ROD) for the Hanford Defense Waste Environmental Impact Statement (HDW-EIS), which was published in the Federal Register in 1988, and the Tri-Party Agreement (M-18-00) between the U.S. Department of Energy, U.S. Environmental Protection Agency, and the Washington State Department of Ecology, which was signed in 1989. The ROD recognizes the storage of TRU wastes at Hanford is temporary and that WRAP Module 1 is a necessary facility to safely manage the permanent disposal of these wastes. Retrievably stored suspect TRU waste includes some hazardous constituents. The Tri-Party Agreement (M-18-00) recognizes characterizing these wastes in WRAP is an essential part of safely handling the waste in accordance with WAC 173-303.

Characterizing TRU waste is necessary to satisfy the WIPP-Waste Acceptance Criteria (WAC) and the State of New Mexico Hazardous Waste Regulations which includes both radiological and hazardous waste designation.

Hazardous waste characterization is required by various State and Federal regulations to identify dangerous and hazardous waste. Treatment, Storage, Disposal (TSD) facilities are thus mandated to confirm knowledge of waste before storage, treatment, or disposal is allowed. Detailed chemical/physical and biological analysis are required.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)
40CFR 60 - (Standards of Performance for New Stationary Sources) 40CFR 61 - (Radiation Emission Standards)
40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)
40CFR 260 - (Hazardous Waste Management System)
40CFR 261 - (Identification and Listing of Hazardous Waste)
40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)
40CFR 264 - (Resource Conservation and Recovery Act (RCRA))
40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)
WAC 173-400 - (General Regulations for Air Pollution Sources)
WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

DOE Order 4700.1A - (Project Management System)
DOE Order 5400.1 - (General Environmental Protection Program)
DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)

DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)
DOE Order 5480.22 - (Technical Safety Requirements)
DOE Order 5480.23 - (Nuclear Safety Analysis Reports)
DOE Order 5480.24 - (Nuclear Criticality Safety)
DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)
DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)
DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS
CAA REGULATIONS
RCRA REGULATIONS
TSCA REGULATIONS

REGULATORY KEY ISSUES:

The only clearly identified key issue is the question of how to sample the waste to effect acceptable characterization. Final resolution will occur through Resource Conservation and Recovery Act (RCRA) Part B Permit negotiations with the State of Washington Department of Ecology.

COMP/PROG BENEFITS AT PLANNING LEVEL:
No impacts at the planning level.

CONCERNS AT PLANNING LEVEL:

The storage of TRU waste drums began at Hanford in 1970, with the objective they would be retrieved within 20 years. By the planned start-up of WRAP Module 1 in 1997, some of these drums will have been in underground storage for 27 years. This extended storage has already contributed to the deterioration of these drums, complicating retrieval, handling, and on-site transportation of these drums. Deferral or complete non-support for WRAP Module 1 will increase deterioration of containers resulting in loss of containment and potential contamination of soils adjacent to containers and increased worker radiation exposure potential during retrieval, transportation, and handling in WRAP Module 1. Deferral of WRAP Module 1 will delay compliance with Tri-Party Agreement milestone and implementation of the HDW-EIS ROD.

The operations activities, based on the target and decrement case funding shortfalls in FY 1996 (\$5,275K and \$7,867K respectively), will be phased such that the low level waste line will be operational to meet the M-18 TPA milestone, but the TRU line will not be operational. The planning case provides funding for the staffing increases to startup the TRU line. In the target case the TRU line will become operational in FY 1998. In the subsequent years, funding is provided to fully operate the facility.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development is required. Equipment development, prototyping, design, procurement, mock-up, and testing is necessary.

E-T010

OFFICE OF WASTE MANAGEMENT
TASK DESCRIPTION DOCUMENT

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2220 ADS SUF: 1 SUBACTIVITY: AF

SUBACTIVITY TITLE: W-026 WRAP 1 OPERATIONS

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 91L-EWW-026 TPC: 91200 TEC: 53600

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

	B&R	FY1996 TOTAL
OE EW3130020		2652
TOTAL		2652
DIRECT FTE		24

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	1718	2047	5196		5196	7758	14712	25241	23781
CE 35EW31302	0	0		0	0	0	3347	3347	3347
TOTAL	1718	2047	5196	0	5196	7758	18058	28588	27128
DIRECT FTE	11	19	47	0	47	72	101	167	154

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
		RL BUD	LEGAL	ESH	TOTAL				
OE EW3130020	1718	1764	10845		10845	24100	25578	28170	26495
CE 35EW31302	0	0	0		0	0	3347	3347	3347
TOTAL	1718	1764	10845	0	10845	24100	28925	31517	29842
DIRECT FTE	11	21	76	0	76	173	179	179	159

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This Project supports the project technical and support work necessary to design, construct, and operate Waste Receiving and Processing (WRAP) Module 1. WRAP Module 1 is a planned facility that will provide certification and treatment for over 38,000 drums of suspect Transuranic (TRU) solid waste stored at Hanford and provide mixed waste verification sampling capability for waste in storage as well as newly generated wastes. The TRU fraction of these wastes may be transported to and emplaced in the Waste Isolation Pilot Plant (WIPP) in New Mexico. The non-TRU fraction will be segregated for onsite disposal or further processing. WRAP Module 1 will be a new facility located in the 200 West Area of Hanford.

This Project will provide for definitive design, procurement, National Environmental Policy Act (NEPA) documentation, construction testing, and start-up of WRAP 1. This will also include such support activities as preparation of safety documentation, feasibility evaluations, engineering trade-off studies, systems and software development, project management, ALARA studies, waste acceptance criteria, and monitoring of interfaces with other Hanford projects and facilities. This activity will include demonstrations required to support the technical basis, process development, equipment testing and inspection, material selection, operator training, operability testing, preparation of operating procedures, and readiness review.

Crucial technology development needs include non-destructive examination systems, waste handling systems, and identification of waste sampling and characterization requirements and methodologies.

This Subactivity provides support for startup which includes preparation of plans (startup, emergency response, facility effluent monitoring, maintenance, training, etc.), procedure development (operating, maintenance, training, administrative, etc.), and compliance reviews. Operations begins in FY 1997. These activities are outside the scope of start-up contained in the total project costs.

RELATED ACTIVITIES NARRATIVE:

This activity is related to waste retrieval (Phase 1 Retrieval, ADS 2200-02) and storage (Phase V Storage, ADS 2200-01).

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this ADS reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost efficiencies.

The schedule dates and Budget Authority profile in this ADS reflects approval of Tri-Party Agreement change request M-18-90-2 to complete construction in March 1996, and initiate operations in March 1997, with an identified TEC of \$53.6M.

A key operations assumption is that no sample analysis capability is currently provided within the scope of WRAP Module 1. Laboratory support will be available and/or automated field screening capabilities will be added in the future.

A key planning assumption is that WRAP Module 1 construction can be accomplished under interim status. If finalization of the Part B Permit is required, WRAP Module 1 construction schedules will be impacted and new Tri-Party Agreement milestones for completion of construction and start of operations will need to be negotiated with the Environmental Protection Agency (EPA) and the State of Washington Department of Ecology (Ecology).

ACTIVITY BY PRIORITY:

RL Priority B1. Hanford Site Priority 26. HQ Priority 2, 3, 4, 6. The Project is in support of the Tri-Party Milestones M-18-00 (Major TPA), 'Initiate WRAP 1 Operations', and M-18-01 (Interim TPA), 'Complete WRAP 1 Construction.'

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Significant accomplishments have been completed on WRAP Module 1. Completion of activities to support construction includes: approval of Key Decision 1, 2 and 3; Conceptual Design; Definitive Design; issuance of Construction Management Plan by CM; Engineering and Inspection (Title III) contract established and associated reporting complete. In FY94, Request for Quotes (RFQ) process was completed and resulted in identification of an apparent low bidder for the major construction contract. The construction contract will be awarded and construction and procurement activities initiated.

Equipment development activities completed are the design media review to NDE/NDA, building systems, glovebox, and waste handling systems, and associated equipment development and testing activities.

Project documentation completed includes: Supplemental Design Requirements Document (SDRD) revision; Waste Sampling Plan (Chapter 3 of Part B Permit); ICE review; Project Plan; Project Management Plan; initial revision of startup plan; PSAR; initiation of the FSAR; Air Permits; and the NEPA C-2 Analysis. The three Air Permits that are required to construct WRAP 1 have been submitted and returned approved.

Startup activities include preparation and issuance of a Readiness Review plan and continue to staff-up for startup. The FSAR will be initiated. Operations activities will be to establish an organization for the operations and readiness review process.

Procurement activities will include review of contractor vendor submittals for major procurements, procurement of the TRUPACT equipment and preparation of the procurement specification for the Government Furnished Equipment (GFE) Boxed Waste Assay System, and purchase of facility spares.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G Establish the organizations for the operations and readiness review process for WRAP Module 1. Revise startup plans and initiate readiness review activities.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Provide issuance of FSAR, update RCRA Part B as required, continue safety/QA support, and provide support to readiness review/startup activities.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Continue to staff-up for readiness review and plant operations. Initiate preparation of operating, test procedures, various operating and administrative procedures, readiness review documentation, etc.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Plant startup activities will be completed to meet the proposed TPA milestone M-18-00 to initiate operations in March 1997. Preparation of operating procedures, operator training, operability testing, readiness reviews, and other required compliance reviews will be accomplished in FY 1995-1997 to support Key Decision 4 in February 1997, and initiation of operations in March 1997.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The Department of Energy has written commitments to the Public, the State of Washington, and the Federal Environmental Protection Agency to construct WRAP Module 1 and enable permanent disposal of TRU wastes currently stored at Hanford. These written commitments are in the form of the Record Of Decision (ROD) for the Hanford Defense Waste Environmental Impact Statement (HDW-EIS), which was published in the Federal Register in 1988, and the Tri-Party Agreement (M-18-00) between the U.S. Department of Energy, U.S. Environmental Protection Agency, and the Washington State Department of Ecology, which was signed in 1989. The ROD recognizes the storage of TRU wastes at Hanford is temporary and that WRAP Module 1 is a necessary facility to safely manage the permanent disposal of these wastes. Retrievably stored suspect TRU waste includes some hazardous constituents. The Tri-Party Agreement (M-18-00) recognizes characterizing these wastes in WRAP is an essential part of safely handling the waste in accordance with WAC 173-303.

Characterizing TRU waste is necessary to satisfy the WIPP-Waste Acceptance Criteria (WAC) and the State of New Mexico Hazardous Waste Regulations which includes both radiological and hazardous waste designation.

Hazardous waste characterization is required by various State and Federal regulations to identify dangerous and hazardous waste. Treatment, Storage, Disposal (TSD) facilities are thus mandated to confirm knowledge of waste before storage, treatment, or disposal is allowed. Detailed chemical/physical and biological analysis are required.

Specific regulations in addition to others required are:

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40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)
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40CFR 261 - (Identification and Listing of Hazardous Waste)
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40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)
WAC 173-400 - (General Regulations for Air Pollution Sources)
WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

DOE Order 4700.1A - (Project Management System)
DOE Order 5400.1 - (General Environmental Protection Program)
DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)

DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)
DOE Order 5480.22 - (Technical Safety Requirements)
DOE Order 5480.23 - (Nuclear Safety Analysis Reports)
DOE Order 5480.24 - (Nuclear Criticality Safety)
DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)
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DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS
CAA REGULATIONS
RCRA REGULATIONS
TSCA REGULATIONS

REGULATORY KEY ISSUES:

The only clearly identified key issue is the question of how to sample the waste to effect acceptable characterization. Final resolution will occur through Resource Conservation and Recovery Act (RCRA) Part B Permit negotiations with the State of Washington Department of Ecology.

COMP/PROG BENEFITS AT PLANNING LEVEL:
No impacts at the planning level.

CONCERNS AT PLANNING LEVEL:

The storage of TRU waste drums began at Hanford in 1970, with the objective they would be retrieved within 20 years. By the planned start-up of WRAP Module 1 in 1997, some of these drums will have been in underground storage for 27 years. This extended storage has already contributed to the deterioration of these drums, complicating retrieval, handling, and on-site transportation of these drums. Deferral or complete non-support for WRAP Module 1 will increase deterioration of containers resulting in loss of containment and potential contamination of soils adjacent to containers and increased worker radiation exposure potential during retrieval, transportation, and handling in WRAP Module 1. Deferral of WRAP Module 1 will delay compliance with Tri-Party Agreement milestone and implementation of the HDW-EIS ROD.

The operations activities, based on the target and decrement case funding shortfalls in FY 1996 (\$5,275K and \$7,867K respectively), will be phased such that the low level waste line will be operational to meet the M-18 TPA milestone, but the TRU line will not be operational. The planning case provides funding for the staffing increases to startup the TRU line. In the target case the TRU line will become operational in FY 1998. In the subsequent years, funding is provided to fully operate the facility.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development is required. Equipment development, prototyping, design, procurement, mock-up, and testing is necessary.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2220 ADS SUF: 1 SUBACTIVITY: AG

SUBACTIVITY TITLE: W-026 WRAP 1 DETAILED DESIGN (TITLE II)

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 91L-EWW-026 TPC: 91200 TEC: 53600

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
LI 39EW31302	1700	378		0	0	0	0	0	0
TOTAL	1700	378	0	0	0	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
LI 39EW31302	1700	420	0		0	0	0	0	0
TOTAL	1700	420	0	0	0	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This Project supports the project technical and support work necessary to design, construct, and operate Waste Receiving and Processing (WRAP) Module 1. WRAP Module 1 is a planned facility that will provide certification and treatment for over 38,000 drums of suspect Transuranic (TRU) solid waste stored at Hanford and provide mixed waste verification sampling capability for waste in storage as well as newly generated wastes. The TRU fraction of these wastes may be transported to and emplaced in the Waste Isolation Pilot Plant (WIPP) in New Mexico. The non-TRU fraction will be segregated for onsite disposal or further processing. WRAP Module 1 will be a new facility located in the 200 West Area of Hanford.

This Project will provide for definitive design, procurement, National Environmental Policy Act (NEPA) documentation, construction testing, and start-up of WRAP 1. This will also include such support activities as preparation of safety documentation, feasibility evaluations, engineering trade-off studies, systems and software development, project management, ALARA studies, waste acceptance criteria, and monitoring of interfaces with other Hanford projects and facilities. This activity will include demonstrations required to support the technical basis, process development, equipment testing and inspection, material selection, operator training, operability testing, preparation of operating procedures, and readiness review.

Crucial technology development needs include non-destructive examination systems, waste handling systems, and identification of waste sampling and characterization requirements and methodologies.

This Subactivity provides for Architect/Engineer (A/E) preparation of the Definitive Design, which includes Preliminary Design (Title I) and Detailed Design (Title II). Title II includes drawing specifications, construction schedules, and cost estimate. The design packages include site preparation, building structures, building systems processing equipment, installation of process equipment, site completion and computers. This Subactivity also provides for Field Engineering and Inspection (Title III) activities to include: ECNs/NCRs, as-builts, configuration management, fair cost estimates and submittal review to be performed by the offsite A/E, and oversight/acceptance inspection for construction to be performed by the onsite A/E.

RELATED ACTIVITIES NARRATIVE:

This activity is related to waste retrieval (Phase 1 Retrieval, ADS 2200-02) and storage (Phase V Storage, ADS 2200-01).

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this ADS reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost efficiencies.

The schedule dates and Budget Authority profile in this ADS reflects approval of Tri-Party Agreement change request M-18-90-2 to complete construction in March 1996, and initiate operations in March 1997, with an identified TEC of \$53.6M.

A key operations assumption is that no sample analysis capability is currently provided within the scope of WRAP Module 1. Laboratory support will be available and/or automated field screening capabilities will be added in the future.

A key planning assumption is that WRAP Module 1 construction can be accomplished under interim status. If finalization of the Part B Permit is required, WRAP Module 1 construction schedules will be impacted and new Tri-Party Agreement milestones for completion of construction and start of operations will need to be negotiated with the Environmental Protection Agency (EPA) and the State of Washington Department of Ecology (Ecology).

ACTIVITY BY PRIORITY:

RL Priority B1. Hanford Site Priority 26. HQ Priority 2, 3, 4, 6. The Project is in support of the Tri-Party Milestones M-18-00 (Major TPA), 'Initiate WRAP 1 Operations', and M-18-01 (Interim TPA), 'Complete WRAP 1 Construction.'

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Significant accomplishments have been completed on WRAP Module 1. Completion of activities to support construction includes: approval of Key Decision 1, 2 and 3; Conceptual Design; Definitive Design; issuance of Construction Management Plan by CM; Engineering and Inspection (Title III) contract established and associated reporting complete. In FY94, Request for Quotes (RFQ) process was completed and resulted in identification of an apparent low bidder for the major construction contract. The construction contract will be awarded and construction and procurement activities initiated.

Equipment development activities completed are the design media review to NDE/NDA, building systems, glovebox, and waste handling systems, and associated equipment development and testing activities.

Project documentation completed includes: Supplemental Design Requirements Document (SDRD) revision; Waste Sampling Plan (Chapter 3 of Part B Permit); ICE review; Project Plan; Project Management Plan; initial revision of startup plan; PSAR; initiation of the FSAR; Air Permits; and the NEPA C-2 Analysis. The three Air Permits that are required to construct WRAP 1 have been submitted and returned approved.

Startup activities include preparation and issuance of a Readiness Review plan and continue to staff-up for startup. The FSAR will be initiated. Operations activities will be to establish an organization for the operations and readiness review process.

Procurement activities will include review of contractor vendor submittals for major procurements, procurement of the TRUPACT equipment and preparation of the procurement specification for the Government Furnished Equipment (GFE) Boxed Waste Assay System, and purchase of facility spares.

SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G Title II Design was completed. Initiation of Title III activities.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G Provide issuance of FSAR, update RCRA Part B as required, continue safety/QA support, and provide support to readiness review/startup activities.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G Continue with Engineering/Inspection activities through the construction completion of the facility in March 1996.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G Continue with Engineering/Inspection activities through the construction completion of the facility in March 1996.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The Department of Energy has written commitments to the Public, the State of Washington, and the Federal Environmental Protection Agency to construct WRAP Module 1 and enable permanent disposal of TRU wastes currently stored at Hanford. These written commitments are in the form of the Record Of Decision (ROD) for the Hanford Defense Waste Environmental Impact Statement (HDW-EIS), which was published in the Federal Register in 1988, and the Tri-Party Agreement (M-18-00) between the U.S. Department of Energy, U.S. Environmental Protection Agency, and the Washington State Department of Ecology, which was signed in 1989. The ROD recognizes the storage of TRU wastes at Hanford is temporary and that WRAP Module 1 is a necessary facility to safely manage the permanent disposal of these wastes. Retrievably stored suspect TRU waste includes some hazardous constituents. The Tri-Party Agreement (M-18-00) recognizes characterizing these wastes in WRAP is an essential part of safely handling the waste in accordance with WAC 173-303.

Characterizing TRU waste is necessary to satisfy the WIPP-Waste Acceptance Criteria (WAC) and the State of New Mexico Hazardous Waste Regulations which includes both radiological and hazardous waste designation.

Hazardous waste characterization is required by various State and Federal regulations to identify dangerous and hazardous waste. Treatment, Storage, Disposal (TSD) facilities are thus mandated to confirm knowledge of waste before storage, treatment, or disposal is allowed. Detailed chemical/physical and biological analysis are required.

Specific regulations in addition to others required are:

CODE OF FEDERAL REGULATIONS

40CFR 191-03(B) - (Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes)
40CFR 60 - (Standards of Performance for New Stationary Sources) 40CFR 61 - (Radiation Emission Standards)
40CFR 61 - (National Emission Standards for Hazardous Air Pollutants)
40CFR 260 - (Hazardous Waste Management System)
40CFR 261 - (Identification and Listing of Hazardous Waste)
40CFR 262 - (Standards Applicable to Generators of Hazardous Waste)
40CFR 264 - (Resource Conservation and Recovery Act (RCRA))
40CFR 265 - (Interim Standards for Owners and Operators of Hazardous Waste TSD Facilities)

WASHINGTON STATE REGULATIONS

WAC 173-303 - (Dangerous Waste Regulations)
WAC 173-400 - (General Regulations for Air Pollution Sources)
WAC 296-155 - (Washington Industrial Safety and Health Act)

DEPARTMENT OF ENERGY ORDERS

DOE Order 4700.1A - (Project Management System)
DOE Order 5400.1 - (General Environmental Protection Program)
DOE Order 5400.5 - (Radiation Protection of the Public and the Environment)

DOE Order 5480.1B - (Environmental, Safety, and Health Program for DOE Operations)
DOE Order 5480.22 - (Technical Safety Requirements)
DOE Order 5480.23 - (Nuclear Safety Analysis Reports)
DOE Order 5480.24 - (Nuclear Criticality Safety)
DOE Order 5480.3 - (Safety Requirements for the Packaging and Transportation of hazardous Materials, Hazardous Substances, and Hazardous Wastes)
DOE Order 5480.4 - (Environmental Protection, Safety, and Health Protection Standards)
DOE Order 5820.2A - (Radioactive Waste Management)
DOE Order 6430.1A - (General Design Criteria)

NESHAP REGULATIONS
CAA REGULATIONS
RCRA REGULATIONS
TSCA REGULATIONS

REGULATORY KEY ISSUES:

The only clearly identified key issue is the question of how to sample the waste to effect acceptable characterization. Final resolution will occur through Resource Conservation and Recovery Act (RCRA) Part B Permit negotiations with the State of Washington Department of Ecology.

COMP/PROG BENEFITS AT PLANNING LEVEL:
No impacts at the planning level.

CONCERNS AT PLANNING LEVEL:

The storage of TRU waste drums began at Hanford in 1970, with the objective they would be retrieved within 20 years. By the planned start-up of WRAP Module 1 in 1997, some of these drums will have been in underground storage for 27 years. This extended storage has already contributed to the deterioration of these drums, complicating retrieval, handling, and on-site transportation of these drums. Deferral or complete non-support for WRAP Module 1 will increase deterioration of containers resulting in loss of containment and potential contamination of soils adjacent to containers and increased worker radiation exposure potential during retrieval, transportation, and handling in WRAP Module 1. Deferral of WRAP Module 1 will delay compliance with Tri-Party Agreement milestone and implementation of the HDW-EIS ROD.

The operations activities, based on the target and decrement case funding shortfalls in FY 1996 (\$5,275K and \$7,867K respectively), will be phased such that the low level waste line will be operational to meet the M-18 TPA milestone, but the TRU line will not be operational. The planning case provides funding for the staffing increases to startup the TRU line. In the target case the TRU line will become operational in FY 1998. In the subsequent years, funding is provided to fully operate the facility.

REQUIRED TECHNICAL DEVELOPMENT:

No technology development is required. Equipment development, prototyping, design, procurement, mock-up, and testing is necessary.

INTRODUCTION AND CROSS-REFERENCE INFORMATION

OPERATIONS OFFICE: RL ADS ID: 2220 ADS SUF: 1 SUBACTIVITY: AH

SUBACTIVITY TITLE: W-026 WRAP 1 CONSTRUCTION

INSTALLATION: HANFORD

CATEGORY: WM DEFENSE/NON-DEFENSE: VERSION DATE: 5/12/93

PROGRAM: EM PRINT DATE: 8/16/94

COST INFORMATION:

LINE ITEM NO: 91L-EWW-026 TPC: 91200 TEC: 53600

DESCRIPTION: RICHLAND SOLID/LIQ WASTE & DEC-NFP

DECREMENT CASE (\$ IN THOUSANDS)

B&R	FY1996 TOTAL
TOTAL	0
DIRECT FTE	0

TARGET CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
LI 39EW31302	12995	545		0	0	0	0	0	0
TOTAL	12995	545	0	0	0	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

PLANNING CASE (\$ IN THOUSANDS)

	FY1994	FY1995	FY1996	FY1996	FY1996	FY1997	FY1998	FY1999	FY2000
B&R	RL	BUD	LEGAL	ESH	TOTAL				
LI 39EW31302	12995	605	0		0	0	0	0	0
TOTAL	12995	605	0	0	0	0	0	0	0
DIRECT FTE	0	0	0	0	0	0	0	0	0

SCOPE INFORMATION

TECHNICAL SCOPE NARRATIVE:

This Project supports the project technical and support work necessary to design, construct, and operate Waste Receiving and Processing (WRAP) Module 1. WRAP Module 1 is a planned facility that will provide certification and treatment for over 38,000 drums of suspect Transuranic (TRU) solid waste stored at Hanford and provide mixed waste verification sampling capability for waste in storage as well as newly generated wastes. The TRU fraction of these wastes may be transported to and emplaced in the Waste Isolation Pilot Plant (WIPP) in New Mexico. The non-TRU fraction will be segregated for onsite disposal or further processing. WRAP Module 1 will be a new facility located in the 200 West Area of Hanford.

This Project will provide for definitive design, procurement, National Environmental Policy Act (NEPA) documentation, construction testing, and start-up of WRAP 1. This will also include such support activities as preparation of safety documentation, feasibility evaluations, engineering trade-off studies, systems and software development, project management, ALARA studies, waste acceptance criteria, and monitoring of interfaces with other Hanford projects and facilities. This activity will include demonstrations required to support the technical basis, process development, equipment testing and inspection, material selection, operator training, operability testing, preparation of operating procedures, and readiness review.

Crucial technology development needs include non-destructive examination systems, waste handling systems, and identification of waste sampling and characterization requirements and methodologies.

This Subactivity provides for construction of the WRAP 1 Project. This will include three fixed-price construction contract packages which are: Site, Facility and Process Equipment; NDE Equipment Systems; and NDA Equipment Systems. The Site, Facility and Process Equipment construction package will include: pre-engineered building; associated HVAC, electrical and instrumentation; and fabrication and installation of gloveboxes and compactors. The NDE Equipment System will include procurement/installation of x-ray equipment. The NDA Equipment System will include procurement/installation of radionuclide measurement equipment.

RELATED ACTIVITIES NARRATIVE:

This activity is related to waste retrieval (Phase 1 Retrieval, ADS 2200-02) and storage (Phase V Storage, ADS 2200-01).

KEY ASSUMPTIONS:

In an effort to enhance cost efficiencies, this ADS reflects a productivity commitment which achieves the same workscope at a lower unit rate, or the application of more efficient processes, or through cost efficiencies.

The schedule dates and Budget Authority profile in this ADS reflects

approval of Tri-Party Agreement change request M-18-90-2 to complete construction in March 1996, and initiate operations in March 1997, with an identified TEC of \$53.6M.

A key operations assumption is that no sample analysis capability is currently provided within the scope of WRAP Module 1. Laboratory support will be available and/or automated field screening capabilities will be added in the future.

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ACTIVITY BY PRIORITY:

RL Priority B1. Hanford Site Priority 26. HQ Priority 2, 3, 4, 6. The Project is in support of the Tri-Party Milestones M-18-00 (Major TPA), 'Initiate WRAP 1 Operations', and M-18-01 (Interim TPA), 'Complete WRAP 1 Construction.'

CAPITAL EQUIPMENT TITLES WITH DOLLARS OVER 25K

TASKS COMPLETED TO DATE:

Significant accomplishments have been completed on WRAP Module 1. Completion of activities to support construction includes: approval of Key Decision 1, 2 and 3; Conceptual Design; Definitive Design; issuance of Construction Management Plan by CM; Engineering and Inspection (Title III) contract established and associated reporting complete. In FY94, Request for Quotes (RFQ) process was completed and resulted in identification of an apparent low bidder for the major construction contract. The construction contract will be awarded and construction and procurement activities initiated.

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SCHEDULE INFORMATION

FY 1994 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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CURRENT YEAR (FY 1994) TASK NARRATIVE:

^G Activities will be initiated at the release of the construction contracts. The construction schedule will be towards a completion of the project in March 1996.

FY 1995 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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BUDGET YEAR (FY 1995) TASK NARRATIVE:

^G The construction schedule will be towards a completion of the project in March 1996.

FY 1996 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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PLANNING YEAR (FY 1996) TASK NARRATIVE:

^G The construction schedule will be towards a completion of the project in March 1996.

FY 1997-FY 2000 MILESTONES:

MILESTONE ID	TITLE	PLANNING	TARGET
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OUTYEAR (FY 1997-2000) TASK NARRATIVE:

^G No construction activities planned in outyears.

DRIVERS AND IMPACTS INFORMATION

REGULATORY DRIVERS:

The Department of Energy has written commitments to the Public, the State of Washington, and the Federal Environmental Protection Agency to construct WRAP Module 1 and enable permanent disposal of TRU wastes currently stored at Hanford. These written commitments are in the form of the Record Of Decision (ROD) for the Hanford Defense Waste Environmental Impact Statement (HDW-EIS), which was published in the Federal Register in 1988, and the Tri-Party Agreement (M-18-00) between the U.S. Department of Energy, U.S. Environmental Protection Agency, and the Washington State Department of Ecology, which was signed in 1989. The ROD recognizes the storage of TRU wastes at Hanford is temporary and that WRAP Module 1 is a necessary facility to safely manage the permanent disposal of these wastes. Retrievably stored suspect TRU waste includes some hazardous constituents. The Tri-Party Agreement (M-18-00) recognizes characterizing these wastes in WRAP is an essential part of safely handling the waste in accordance with WAC 173-303.

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COMP/PROG BENEFITS AT PLANNING LEVEL:
No impacts at the planning level.

CONCERNS AT PLANNING LEVEL:

The storage of TRU waste drums began at Hanford in 1970, with the objective they would be retrieved within 20 years. By the planned start-up of WRAP Module 1 in 1997, some of these drums will have been in underground storage for 27 years. This extended storage has already contributed to the deterioration of these drums, complicating retrieval, handling, and on-site transportation of these drums. Deferral or complete non-support for WRAP Module 1 will increase deterioration of containers resulting in loss of containment and potential contamination of soils adjacent to containers and increased worker radiation exposure potential during retrieval, transportation, and handling in WRAP Module 1. Deferral of WRAP Module 1 will delay compliance with Tri-Party Agreement milestone and implementation of the HDW-EIS ROD.

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REQUIRED TECHNICAL DEVELOPMENT:

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